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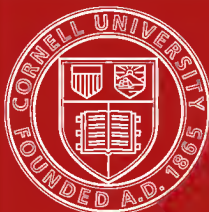
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THE
MONEY OF THE UNITED STATES.

ITS CHARACTER AND LEGAL STATUS

FROM 1793 TO 1893

AND

ITS VOLUME FROM 1873 TO 1893,

WITH

AN ABSTRACT OF VARIOUS PLANS PROPOSED FOR THE
SOLUTION OF THE CURRENCY PROBLEM.

BY

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INTRODUCTION.

It is contemplated presenting in the following pages : (1) A brief legislative history of the coin and paper currency in use in the United States, in order to set forth in a concise and comprehensive manner the character of our money ; (2) Statistical tables showing the volume of money annually from 1873, the year in which the coinage system was reorganized, to 1893 ; and (3) An abstract of the leading propositions submitted, in Congress and elsewhere, for the eventual solution of the currency problem ; since it is generally conceded that measures looking to a change should be adopted in the near future.

It will be remembered that prior to 1861 the Federal Government, as far as our currency is concerned, very rarely performed more than the comparatively simple functions specifically prescribed by the Constitution : "to coin money, regulate the value thereof, and of foreign coin" ; but the necessities of a great civil war apparently compelled it to assume the duty of legislating to provide other forms of money. While this course has unquestionably given us paper issues which had a uniform standing throughout the country, it has nevertheless led to the establishment of a system comprising so many unlike forms of circulation that men of even more than average intelligence are frequently unable to determine the *legal* characteristics of any given coin or note.

The heterogeneous character of our circulating media makes it desirable to bring together all the data relating to the several issues, in order to indicate the laws upon which the issues are based, and which give them currency, as well as to the changes to which the several kinds of money have been subjected, and furthermore, the data relating to the volume of each kind of money and the existing limitations, legal or natural, which restrict the amounts that may be issued.

The character of our money may be readily determined by reference to the statutes and judicial decisions ; these are, however, scattered through many

volumes not readily accessible. The *volume* is, however, in a considerable measure dependent upon estimates. Prior to 1887 the only data obtainable were: (a) The Annual Reports of the Treasurer of the United States, exhibiting the issues and redemption of the several Government emissions of paper; (b) The Annual Reports of the Comptroller of the Currency, giving the same information relative to the note-issues of national banks; and (c) The annual estimates of the Director of the Mint of the amount of coin in the country. Since the year 1887, however, the Treasury Department has issued a monthly statement embracing all of these data.

With respect to the statistics relating to the paper issues, it may be said that the data are sufficiently accurate to serve the purpose in view, the only possible discrepancy being due to the unsettled problem as to the amount of paper money which has been destroyed while in private hands. Various estimates of the extent of this loss have appeared from time to time; but none of those deserving attention places the destruction at an amount which would materially affect the value of the comparative statistics presented herewith.

It is otherwise with reference to the statistics of the coin in the country. While those relating to silver are probably as correct as those of the paper circulation, the amount of gold in the country is largely a matter of estimate; and an important difference of opinion has, from time to time, become manifest. This will be discussed more fully in the proper place.

Estimates are also presented of the probable amount of money *per capita* in use at the end of each year under consideration. Although the value of such estimates, as a guide to the probable needs of the country, has been seriously questioned, and while it does not appear quite clear that any satisfactory conclusive deduction can be drawn from such estimates, it is, nevertheless, believed that such a statement cannot fail to possess a certain relative value, particularly if considered in connection with prices and other economic statistics.

Moreover the presentation of these data in this form may tend to throw some light upon the currency question in general, and contribute a mite to the material necessary to bring about the eventual discovery of the law, if such there be, governing the demands of this country for circulating media.

MAURICE L. MUHLEMAN.

THE MONEY OF THE UNITED STATES.

PART I.

THE CHARACTER AND LEGAL STATUS OF THE CURRENCY.

A brief abstract of the legal status of each of the several kinds of money is first presented to determine their character, embracing, with respect to coins, the denomination, composition, weight, fineness, and resulting ratio; the changes which have been made by the laws both in these particulars and in the legal-tender power of each class; and with respect to paper issues, the denominations as well as the extent to which these are lawful tenders or available and exchangeable. In addition, the aggregate issues and reissues are given for each class of money.

I. GOLD.

The gold coinage of the United States was begun under the act of Congress of April 2, 1792, establishing the Mint of the United States. It provided for the coinage of eagles (\$10), half-eagles (\$5), and quarter-eagles (\$2.50); the eagle was to weigh 270 grains standard, or 247 4-8 grains fine, establishing thus the British standard of fineness of eleven-twelfths, or 22 carats, equal to 916⅔ thousandths; the alloy was composed of silver and copper "in such proportions, not exceeding one-half silver, as shall be found convenient." The coinage was free and unlimited, and the coins were made legal tender "for all payments whatsoever."

The act of June 28, 1834, changed the weight of the eagles to 258 grains standard and 232 grains pure gold; the weights of the half-eagle and quarter-eagle were reduced correspondingly, thus changing the fineness to nearly 900 thousandths (899.225); by the act of January 18, 1837, the fineness was fixed at

900 thousandths, and the weight of the eagle at 258 grains, making the weight of pure gold contained therein 232.2 grains; the weight of the half-eagle and that of the quarter-eagle were also fixed proportionately.

The act of March 3, 1849, provided for the coinage of double-eagles (\$20 pieces) and dollars, making them legal tenders like other gold pieces.

The act of February 12, 1873, which revised the entire coinage laws, changed the conditions only by adding a three-dollar piece, changing the alloy to copper alone, and fixing a charge of one-fifth of one per cent. for coinage. The act of January 14, 1875, remitted this charge, making the coinage again free.

The act of September 26, 1890, directed the suspension of the coinage of the gold dollar and the three-dollar piece.

Accordingly the gold coins now authorized are the double-eagle (\$20), eagle (\$10), half-eagle (\$5), and quarter-eagle (\$2.50), weighing 516, 258, 129 and 64½ grains respectively of standard gold, 900 thousandths fine, and legal tenders for any amount and purpose, if not reduced in weight, by natural abrasion, more than one-half of one per cent. for a period of twenty years as shown by the date of coinage, or a ratable proportion for a shorter period.

The value of an ounce of gold at the mint is therefore \$20.67.2 if fine or pure; and \$18.60½ when 900 thousandths fine.

The coinage of gold for the periods named and to the end of the fiscal year 1893 has been as follows:

Denominations.	1793-1848.	1849-1893.	Total.
Double-eagles .....	.....	\$1,145,463.340	\$1,145,463.340
Eagles	\$25,662,270	192,031,850	217,694,120
Half-eagles	45,265,355	154,268,280	199,533,635
Three-dollars .....	.....	1,619,376	1,619,376
Quarter-eagles	5,413,815	23,181,752	28,595,567
Dollars .....	.....	19,499,377	19,499,377
Total	\$76,341,440	\$1,536,063,975	\$1,612,405,415

The diameter and thickness of the gold coins now issued by the mints are as follows, in thousandths of an inch:

Denominations.	Diameter.	Thickness.
Double-eagle	1,350	77
Eagle	1,050	60
Half-eagle	850	46
Quarter-eagle	750	34

II. SILVER DOLLARS.

The silver dollar was also authorized by the original mint act of April 2, 1792, which provided for the coinage of pieces of the value of the Spanish milled dollar, to contain 371 4-16 grains of pure, or 416 grains of standard silver, thus establishing a fineness of 892.4 per thousand (1,485 parts silver and 179 parts copper), and the ratio to gold of 15 to 1; the coinage was free and unlimited, and the dollars were made a legal tender for all purposes.

The act of June 28, 1834, changed the weight of the gold coins, but not that of the silver dollar; the ratio was thereby changed, however, to 16.002 to 1.

The act of January 18, 1837, changed the weight to 412½ grains and the fineness to 900 thousandths, leaving the weight of pure silver the same. The ratio to gold thus became about 16 (15.988) to 1, and the coining value of an ounce of silver \$1.29.29.

By the act of February 12, 1873, the coinage of the silver dollar was discontinued by the omission of this coin from the list of those authorized to be coined.

The act of February 28, 1878 (passed over the veto of President Hayes) again authorized its coinage at the same weight and fineness as provided in the act of 1837, continuing its legal tender character, unless otherwise stipulated in the contract; and gold certificates were not to be payable in such dollars; but the amount to be coined was limited to that which could be produced from purchases of not less than \$2,000,000 nor more than \$4,000,000 worth of silver bullion monthly, the seigniorage to accrue to the Government. (The minimum amount was invariably purchased.)

The act of July 14, 1890, discontinued the coinage after July 1, 1891, limiting it thereafter to the amount required to redeem the Treasury notes, provided for by that act, in such dollars. (See *post*, Treasury Notes of 1890.)

Under the act of March 3, 1887, the "trade dollars" redeemed at that time were recoined in part into dollars. (See *post*.)

The coinage of dollars to the end of the fiscal year 1893 has been as follows:

Prior to 1873.....	\$8,045,838
Under act of 1878.....	\$378,166,793
From trade dollars redeemed	5,078,472
Under act of 1890*.....	29,408,461
From seigniorage on last item *.....	6,678,724
Total since 1873.....	419,332,450
Aggregate	\$427,378,288

* See Treasury notes of 1890, *post*.

Of these there were in actual circulation on June 30, 1893, \$57,029,743; the remainder were in the Treasury, all but a small amount being held for silver certificates issued.

The statutes provide for the free transportation of dollars throughout the country, the expense being chargeable to the profit fund arising from the seigniorage.

The diameter of the silver dollar is $1\frac{1}{2}$ inches, and the thickness 8-100 of an inch.

The term "free coinage," as herein used, signifies that any holder of bullion may bring the same to any of the mints and have returned to him the number of coins which can be produced from such bullion, without any charge excepting the actual cost, which is trifling in amount.

III. SUBSIDIARY SILVER COIN.

The original mint act of 1792 authorized the coinage of fractional coins representing $\frac{1}{2}$, $\frac{1}{4}$, 1-10 and 1-20 of a dollar, each to be an exact division of the principal silver coin, and legal tender to any amount.

The respective weights of these coins were therefore as follows :

Denominations.	Grains, Standard.	Grains, Fine.
Half-dollars	208	185 10-16
Quarter-dollars	104	92 13-16
Dimes	41 3-5	37 2-16
Half-dimes	20 4-5	18 9-16

The fineness was the same as that of the dollars (892.4 thousandths); the ratio to gold was therefore 15 to 1.

The act of January, 1837, changed the weights of the fractional coin to correspond with the change in weight of the dollar as follows :

Half-dollars.....	206 1-4 grains	standard,	900	fine.
Quarter-dollars.....	103 1-8	"	"	"
Dimes.....	41 1-4	"	"	"
Half-dimes.....	20 5-8	"	"	"

The weight of pure silver in each remained the same as under the act of 1792.

The ratio to gold was therefore the same as that of the dollar; 15.988 to 1.

The act of March 3, 1851, provided for the coinage of a three-cent piece,

weighing $12\frac{3}{8}$ grains, three-fourths silver and one-fourth copper, therefore 750 thousandths fine, to be a legal tender for not exceeding thirty cents.

The act of February 21, 1853, changed the weight of the fractional coins as follows :

Denominations.	Grains, Standard.	Grains, Fine.
Half-dollars	192	172.8
Quarter dollars	96	86.4
Dimes	38.4	34.56
Half-dimes	19.2	17.28

The fineness was continued at 900 thousandths, but the ratio to gold was by the change reduced to 14.884 to 1; and it was provided that these coins be legal tender to the amount of five dollars only. The seigniorage arising from the coinage was charged with the expense of distributing the coin free of transportation, and any balance accrued to the Treasury.

By the act of March 3, 1853, the three-cent piece was increased in value to correspond with the other fractional coins, viz., weight 11.52 grains standard, 900 thousandths fine, containing therefore 10.368 grains pure silver.

The act of March 3, 1863, provided for a nickel three-cent piece, and that of May 16, 1866, for a nickel five-cent piece (see *Minor Coin, post*) without discontinuing the coinage of the silver pieces of these denominations; small amounts were therefore coined until 1873, the act of February 12 of that year omitting them from the silver coinage. Under the provisions of this act the subsidiary pieces now coined are as follows, the fineness remaining at 900 thousandths.

Denominations.	Grammes.	Grains, Standard.	Grains, Fine.
Half-dollars	$12\frac{1}{2}$	192.9	173.61
Quarter-dollars	$6\frac{1}{4}$	96.45	86.805
Dimes	$2\frac{1}{2}$	38.58	34.725

The ratio to gold was thus changed to 14.953 to 1. The diameters and thicknesses of the pieces are : Half-dollars, $1\frac{1}{8}$ inches and $\frac{57}{1000}$ inch, quarter-dollars, $\frac{13}{32}$ inch and $\frac{45}{1000}$ inch, and dimes, $\frac{7}{16}$ inch and $\frac{32}{1000}$ inch respectively.

The act of 1873 also provided that these coins be a legal tender to the amount of five dollars; the act of June 9, 1879, changed this, making them legal tenders for not exceeding ten dollars. The free distribution was continued.

A twenty-cent piece, weighing five grammes, was provided for by the act of March 3, 1875, but the coinage was discontinued by the act of May 2, 1878.

The amount of subsidiary silver coin authorized to be issued was not fixed except as follows: The acts of January 14, 1875, and April 17, 1876, provided for its issue for the redemption of fractional paper currency then in circulation to the amount of about \$42,000,000. The act of July 22, 1876, apparently limited the aggregate issue to \$50,000,000; but this was without considering the amount of such coin as had been withheld from circulation until after the resumption of specie payments; when this reappeared there was evidently a redundancy of this class of coin, and the act of June 9, 1879, provided for its redemption (if not mutilated) at the Treasury or any sub-treasury in "lawful money," in sums or multiples of \$20, and for its reissue in like sums.

Annual appropriations are made for the recoinage of worn subsidiary coin, the loss from wear and use being thus provided for.

Subsidiary Coinage.

Denominations.	1793-1852.	1853-1873.	1874-1893.	Total.
Half-dollars.....	\$66,249,153.00	\$33,596,082.50	\$27,303,821.00	\$127,149,056.50
Quarter-dollars.....	3,999,040.50	18,002,178.00	22,900,231.00	44,901,449.50
Twenty-cents.....	.....	.....	271,000.00	271,000.00
Dimes.....	3,890,662.50	5,170,733.00	19,055,102.90	28,115,898.40
Half-dimes.....	1,825,126.40	3,055,093.00	.....	4,880,219.40
Three-cents.....	744,927.00	537,160.20	.....	1,282,087.20
Total.....	\$76,708,309.40	\$60,361,246.70	\$69,530,154.90	\$206,599,711.00

The act of August 5, 1892, authorized the coinage of \$2,500,000 in half-dollars of a special design, commemorative of the World's Columbian Exposition; and the act of March 3, 1893, provided for the coinage of \$10,000 in quarter-dollars for the same purpose. These pieces were made legal tender the same as other subsidiary coin, and were coined from other subsidiary pieces; therefore the amount in the country was not increased by this coinage.

The act of September 26, 1890, authorized the adoption of new designs for the subsidiary pieces, and accordingly a reissue is now in progress.

IV. MINOR COIN.

Minor coin was first issued under the act of April 2, 1792, in the denomination of one cent and one-half cent; the former was composed of 11 pennyweights (264 grains) and the latter of $5\frac{1}{2}$ pennyweights of copper. The act of May 8th, of the same year, provided that after \$50,000 of such coins had been coined, no other copper coins (of the previous Colonial issues) should pass current as money.

Before any pieces of the weight above specified were struck at the mint, the act of January 14, 1793, provided that the weight of the cent should be changed to 208 grains and that of the half-cent to 104 grains, entirely of copper.

The act of March 3, 1795, authorized the President whenever he should "think it for the benefit of the United States to reduce the weight of the copper coins;" and accordingly by a proclamation under date of January 26, 1796, the weight of the cent was reduced to 163 grains and that of the half-cent to 84 grains.

The act of April 24, 1800, provided that from the proceeds of the minor coins exchanged by the Treasury, additional copper be purchased for the increase of this coinage.

The act of January 18, 1837, fixed by law the weights determined by the above mentioned proclamation of the President.

The act of February 21, 1857, changed the weight of the cent to 72 grains, 88 per cent. of which was to be copper and 12 per cent. nickel; the same act discontinued the coinage of the half-cent.

The act of April 22, 1864, further reduced the weight of the one-cent piece to 48 grains, and changed the composition to copper 95 per cent., tin and zinc 5 per cent., the pieces to be legal tender to the amount of ten cents. This is the present one-cent piece, its coinage having been continued by the act of February 12, 1873.

The same act of 1864 provided for the coinage of a two-cent piece, composed of 95 per cent. copper and 5 per cent. tin and zinc, to be legal tender to the amount of twenty cents.

The act of March 3, 1865, provided for the coinage of a three-cent piece, to weigh 30 grains, not more than 25 per cent. to be nickel and the remainder copper. It was made legal tender to the extent of sixty cents.

The same act reduced the legal tender power of one-cent and two-cent pieces to four cents.

The act of May 16, 1866, authorized the issue of a five-cent piece, composed of 75 per cent. copper and 25 per cent. nickel, to weigh 77.16 grains, to be legal tender to the amount of one dollar; and it provided for the redemption of this coin in sums of not less than \$100.

The act of March 3, 1871, directed the redemption of *all* minor coins in sums of not less than \$20 in *lawful money*, and authorized the discontinuance of the coinage when the volume appeared redundant.

The act of February 12, 1873, omitted from the coinage the two-cent piece, providing only for the five-cent, three-cent and one-cent piece ; it also provided that these shall be a legal tender to the amount of twenty-five cents.

The act of September 26, 1890, discontinued the coinage of the three-cent piece. The present coins are therefore as follows :

Denominations.	Weight.	Composition.
Five cents.....	77.16 grains.	75% copper, 25% nickel.
One cent.....	48 "	95% copper, 5% tin and zinc.

These pieces are legal tender to the extent of twenty-five cents; the issue is limited to the apparent demands of business, furnished free of expense for transportation from the mint at Philadelphia or at any sub-treasury, redeemable in "lawful money" at any sub-treasury in sums of not less than \$20. The coinage has been as follows :

Denominations.	Periods.	Amount.
Half cents	1793-1857	\$39,926.11
Copper cents	1793-1857	1,562,887.44
Nickel cents.....	1857-1864	2,007,720.00
Bronze cents.....	1864-1893	7,096,167.99
Two-cent pieces.....	1864-1873	912,020.00
Three-cent nickels.....	1865-1889	941,349.48
Five-cent nickels.....	1866-1893	12,971,217.15
Totals.....		\$25,531,288.17

The diameter of the five-cent piece is $\frac{1}{2}$ inch, and that of the one-cent piece $\frac{3}{4}$ inch; the thickness of the former is $\frac{88}{1000}$ inch, and of the latter $\frac{148}{1000}$ inch.

V. TRADE DOLLARS.

The act of February 12, 1873, provided for a trade dollar of 420 grains, 900-thousandths fine. Any owner of bullion might deposit the same and have it coined into these dollars, which were intended for trade with China and Japan, to compete with the Mexican silver dollar which was a trifle less valuable.

The same act made all silver coins legal tender to the amount of \$5, and this was construed also to include the trade dollar although it was never contemplated that this coin should circulate in the United States ; accordingly by

joint resolution of July 22, 1876, its legal-tender quality was abrogated and the Secretary of the Treasury was authorized to limit the coinage to such an amount as he might deem necessary to meet the export demands. In October, 1877, the Secretary discontinued the receipts of bullion for this purpose, excepting in the Western mints; as it was found, however, that the trade dollars which were coined there, were put into circulation in the United States, the coinage was entirely discontinued February 22, 1878, except for "proof pieces."

The act of March 3, 1877, provided that for the period of six months thereafter trade dollars, not defaced, mutilated or stamped, be redeemed at their nominal value in standard silver dollars or subsidiary coin, and that the dollars so redeemed be recoined into standard dollars or subsidiary coin; the same act repealed all authority to coin trade dollars, and those not redeemed within the time specified have now only a bullion value.

The coinage of these pieces was as follows:

While they were a legal tender for \$5.....	\$15,631,450
From July 22, 1876, to February 22, 1878.....	20,327,910
Subsequently coined ("proof pieces" only).....	6,564
Total coined.....	<u>\$35,965,924</u>

The records of exports and imports show that from 1874 to 1887 \$28,778,-862 of these dollars were exported and \$1,706,020 imported; of the latter amount \$830,561 were imported subsequent to the redemption act of 1887; \$919,459 were melted up at the mints prior to the redemption act, and \$7,689,-036 were redeemed; of the latter amount \$5,078,472 were recoined into standard dollars, and the remainder into subsidiary coin.

VI. FOREIGN COIN.

Early in the history of the Government, foreign coins were by acts of Congress made legal tender for all purposes, at certain rates. The act of February 9, 1793, was the first of these laws and included such provisions in regard to the gold coins of Great Britain, France, Spain and Portugal, and the silver coins of Spain and France. This act was limited in its operation to three years, at the expiration of which it was expected the mints would be in condition to coin all the money that was needed; but the act was revived by that of February 1, 1798, and again by the acts of April 10, 1806, of April 29, 1816, of March 3, 1819, of March 3, 1821, of March 3, 1823, of June 25, 1834, and of June 28, 1834 (the two latter including in the provision the silver coins of South American countries) and was continued in a modified form by the act of March 3, 1843.

Spain	G. & S.	Peseta	19.3	---	96.5	5 pesetas	5.	1.613	900	25	900	25	885
Roumania	Gold	Ley	19.3	---	96.5	5 leys	5.	1.613	900	---	---	25	885
Servia	G. & S.	Dinar	19.3	---	96.5	5 dinars	5.	1.613	900	25	900	25	885
Bulgaria	G. & S.	Lew	19.3	---	96.5	5 lews	5.	1.613	900	25	900	25	885
Austria-Hungary (new)	Gold	Krone	20.3	---	17.9	20 kronen	25.	.9387	900	---	---	5	885
Turkey	Gold	Piaster	104.4	---	185.7	20 piasters	25.	1.804	916%	---	---	80,069	880
Germany	Gold	Mark	23.8	---	1.07.3	5 marks	5.	1.991	900	---	---	27,777	900
Denmark	Gold	Krone	26.8	---	51.5	2 crowns	{ 10.	1.448	900	---	---	7.5	800
Sweden and Norway	Gold	Krone	26.8	---	51.5	2 crowns	{ 10.	1.448	900	---	---	7.5	800
Russia	Silver	Ruble	42.5	---	77.0	G. ruble \$0.77.2.	1.28	1.672	900	19,986	900	17.99	500
Netherlands	G. & S.	Florin	40.2	---	40.5	Testoon	1.774	1.672	900	10	945	14	640
Portugal	Gold	Milreis	1.06.	---	49.2	Testoon	1.774	1.774	916%	---	---	25	916%
AFRICA.													
Egypt	Gold	Pound	4.94.3	---	96.4	20 piasters 1-5£ E	8.5	8.5	875	---	---	28	883½%
Cape Colony	(*)	---	---	---	---	---	---	---	---	---	---	---	---
Algers	(†)	---	---	---	---	---	---	---	---	---	---	---	---
Tunis	G. & S.	Piaster	11.7	---	12.	---	10.	1.950	900	---	---	30.97	900
ASIA.													
India	Silver	Rupee	---	25.2	45.9	G. Mohr \$7.10.6.	.777	.777	916%	---	---	11.684	916%
China	Silver	Tael a	---	78.4	1.42.2	Haikw. tael \$87.4	---	---	900	26,956	900	25	800
Japan	G. & S.	Yen	99.7	57.8	1.04.	---	1.667	1.667	900	26,956	900	27.15	800
Hong Kong and Straits.	Silver	Dollar	---	57.8	1.04.	---	---	---	916%	53	900	52	900
Persia	G. & S.	Thoman	2.23.1	---	40.1	20 scahis	---	3.760	916%	---	---	---	---
Java	(†)	Piaster	---	---	---	---	---	---	---	---	---	---	---
Cochin China	Silver	Piaster	---	57.8	1.05.	---	---	---	---	27,315	900	27,315	900
OCEANICA.													
Australasia	(*)	Dollar	1.00.	---	1.00.	U. S. coins	---	1.672	900	---	---	25	900
Hawaii	Gold	Peso	98.4	---	1.04.	---	---	1.691	875	25.96	900	25.96	900
Philippine Islands	G. & S.	Peso	98.4	---	1.04.	---	---	---	---	---	---	---	---

* British Standard. † French Standard. ‡ Netherlands Standard. a Shanghai.

The gold dollar of the United States weighs 1.672 grams, the silver dollar, 26.729 grams and two half-dollars, 25 grams.

The prevalence of the French standard is a marked feature of the foregoing table; and it is interesting to note the influence of Great Britain on the Portuguese and Brazilian standards, extending also to Uruguay. But the most remarkable point is the prevalence of the ancient Spanish standard in Mexico and in the Philippine Islands, long after the mother country changed it.

By the act of February 21, 1857, the fractional parts of Spanish and Mexican dollars were receivable by the Treasury at a reduced valuation and recoined, and the same act finally repealed all laws making foreign coins legal tender in the United States.

VII. GOLD CERTIFICATES.

The act of March 3, 1863, authorized the Secretary of the Treasury to receive deposits of gold coin and bullion in sums not less than \$20 and to issue certificates therefor in denominations not less than \$20, corresponding with the denominations of United States notes, the coin and bullion to be retained in the Treasury for the payment of the certificates on demand. It also authorized the issue of such certificates on other coin in the Treasury in payment of interest on the public debt. The total amount of certificates issued was at no time to exceed by more than 20 per cent. the amount of coin and bullion actually in the Treasury. These certificates were not made legal tender, but were to be received at par in payment for duties on imports. The issue began November 13, 1865. The certificates were payable "to order" and passed by indorsement. Immediately prior to the resumption of specie payments (December 1, 1878) the issue was discontinued to facilitate resumption.

The act of July 12, 1882, authorized and directed the Secretary of the Treasury to receive deposits of gold coin in sums not less than \$20 and to issue certificates in denominations not less than \$20, corresponding with the denominations of United States notes, the coin to be retained in the Treasury for the payment of the certificates on demand. The volume was limited by the proviso that the issue should be suspended whenever the amount of gold coin and bullion in the Treasury, reserved for the redemption of United States notes, should fall below \$100,000,000. The certificates are not legal tender, but are receivable for customs, taxes and all public dues, and, when so received, may be reissued; and they may also be held by any national bank as part of its lawful reserve. These certificates were issued payable "to bearer" only, until the year 1888, when an issue of certificates payable "to order" was authorized by the Secretary of the Treasury, but in the denominations of \$5,000 and \$10,000 only. On April 22, 1893, the net gold and bullion in the Treasury having practically fallen below \$100,000,000, the issue was suspended and has not been resumed. [December 1, 1893.]

These certificates (as well as the silver certificates hereafter described) simply recite the fact that so many dollars of the respective kind of coin have been deposited in the Treasury of the United States, payable to the bearer on demand; they are therefore practically warehouse receipts guaranteed by the Government, which has always had the coin on hand to pay the amount in full.

The old issue of gold certificates was as follows :

Gold Certificates (1865-1878).

Denominations.	Issues and Reissues.	Outstanding June 30, 1893.
\$20.....	\$960,000	\$220
100.....	20,234,300	16,600
500.....	32,844,000	12,000
1,000.....	121,881,000	44,000
5,000.....	457,885,000	35 000
10,000.....	314,330,000	150,000
Total.....	\$948,134,300	\$257,820

The new issue of 1882 was as follows :

Gold Certificates (1882-1893).

Denominations.	Issues and Reissues.	Outstanding June 30, 1893.
" To bearer."		
\$20.....	\$27,360,000	\$9,277,414*
50.....	21,400,000	5,124,355
100.....	24,820,000	7,381,100
500.....	29,250,000	5,868,500
1 000.....	60,300,000	12,239,500
5,000.....	62,500,000	6,865,000
10,000.....	163,000,000	13,350,000
Total "to bearer".....	\$388,630,000	\$60,105,869
" To order."		
\$5,000.....	\$51,570,000	\$11,005,000
10,000.....	112,620,000	21,350,000
Total "to order".....	164,190,000	32,355,000
Aggregate.....	\$552,820,000	\$92,460,869

VIII. SILVER CERTIFICATES.

The act of February 28, 1878, authorizing the coinage of the standard dollars provides that any holder of such dollars may deposit the same in the Treasury in sums of not less than \$10 and receive certificates in denominations of \$10 and upward, corresponding with the denominations of United States notes; the coin to be retained in the Treasury for the payment of the certificates on demand. The act of August 4, 1886, authorized and required

* The regulations of the Treasury Department provide for the redemption, *pro tanto*, of fractional parts of notes; but the unredeemed fraction is treated as outstanding. This accounts for the apparent discrepancy here and elsewhere.

the issue of such certificates in denominations of \$1, \$2 and \$5. They are not legal tender, but are receivable for customs, taxes and all public dues, and, when so received, may be reissued. Under the act of July 12, 1882, they may also be held by any national bank as part of its reserve. The volume is limited by the dollars in, or deposited with, the Treasury, coined under the act of 1878 or derived from the seigniorage.

The amount of each denomination, issued and now outstanding, is as follows :

Silver Certificates (1878-1893).

Denominations.	Issues and Reissues.	Outstanding June 30, 1893.
\$1.....	\$84,688,000	\$22,854,833.10
2.....	54,144,000	16,022,609.40
5.....	199,300,000	94,001,804.50
10.....	259,594,000	107,213,741.00
20.....	139,906,000	56,323,196.00
50.....	28,850,000	14,191,010.00
100.....	39,040,000	18,763,220.00
500.....	16,450,000	759,000.00
1,000.....	26,890,000	828,000.00
Total.....	\$848,862,000	\$330,957,504.00

IX. UNITED STATES NOTES.

The act of July 17, 1861, authorized the Secretary of the Treasury to issue, either in exchange for coin or in payment of public dues, not more than \$50,000,000 of notes of denominations less than \$50, not bearing interest, payable on demand at the sub-treasuries in New York, Philadelphia or Boston; the power was limited by the act to December 31, 1862; the notes were made receivable for customs and all public dues, and, when so received or redeemed, might be reissued, within the period fixed.

The act of February 12, 1862, authorized an additional issue of \$10,000,000 of these notes.

The issues and reissues by denominations were as follows :

Five dollars.....	\$21,800,000
Ten dollars.....	20,030,000
Twenty dollars.....	18,200,000
Total.....	\$60,030,000

The redemptions to June 30, 1893, amounted to \$59,974,353, leaving \$55,647 outstanding. Over \$56,000,000 were retired prior to June 30, 1863.

The act of February 25, 1862, provided for the issue of \$150,000,000 United

States notes bearing no interest, in denominations not less than \$5, payable to bearer, not receivable for duties on imports nor payable for interest on the public debt, but legal tender for all other payments, public or private.

The "demand notes" issued under the act of 1861 were to be retired with these new notes; and the holders could also convert the new notes, at their option, into 6 per cent. five-twenty bonds, in sums of \$50 or any multiple. The notes when received or redeemed might be reissued.

On June 11, 1862, Congress authorized an additional issue of the new notes to the amount of \$150,000,000, of which \$35,000,000 might be in notes of denominations under \$5.

The act of March 3, 1863, authorized another issue of \$150,000,000 and limited the proviso for the conversion of the notes into bonds to July 1, 1863. In the aggregate, therefore, \$450,000,000 of these notes were authorized, and the highest amount ever outstanding was on January 3, 1864, when it stood at \$449,338,902.

The act of June 30, 1864, limited the issue to \$400,000,000 and \$50,000,000 temporarily, to retire temporary loans. The reduction of the volume progressed, and by the act of April 12, 1866, the retirement was limited to \$10,000,000 for a period of six months, and thereafter to \$4,000,000 per month; authority was at the same time given to fund such notes into interest-bearing bonds.

On December 31, 1867, the amount outstanding was only \$356,000,000; and by the act of February 4, 1868, the further retirement of notes was suspended. (This act became law without the President's approval.)

On March 18, 1869, Congress passed an act to strengthen the public credit, in which the faith of the United States was solemnly pledged to the payment, in coin or its equivalent, of the United States notes, and to make provision at the earliest practicable period for their redemption in coin.

During the panic of 1873 the Treasury increased the amount outstanding by issuing from the presumed reserve of \$44,000,000, about twenty-six millions, bringing the amount outstanding up to \$382,979,815. The act of June 20, 1874, fixed the maximum amount of these notes at \$382,000,000.

The act of January 14, 1875, provided that the notes be redeemed in coin, in sums not less than \$50, at the sub-treasury in New York on and after January 1, 1879; authorized the retirement of such notes to an amount equal to 80 per cent. of the new national-bank circulation then being issued, but not to exceed \$82,000,000, thus fixing the minimum at \$300,000,000. The Secretary of the Treasury was authorized to sell bonds to obtain coin, and to add such coin as might be available in the Treasury to provide for such redemption. For this purpose the Treasury accordingly sold bonds, for which \$96,000,000 was obtained.

The retirement of notes followed until Congress on May 31, 1878, prohibited the further cancellation and directed the reissue of such as might be received or redeemed by the Treasury. The amount outstanding has therefore ever since remained at \$346,681,016, as it was at the close of business on the day the act was approved.

Specie payments having been suspended generally, in all the States east of the Rocky Mountains, in December, 1861, gold commanded a premium and the United States notes fell below par and continued so until the end of 1878. The premium on gold and the gold-purchasing power of the notes fluctuated as follows during the period :

January 1.	Currency Price of Gold.	Gold Price of Currency.	Price of Gold During the Year.	
			Highest.	Lowest.
1862.....	\$1.03	97.09 cts.	\$1.34	\$1.01½
1863.....	1.33¾	74.84	1.72½	1.22½
1864.....	1.51½	65.95	2.85	1.51½
1865.....	1.44¾	69.32	2.34¾	1.28½
1866.....	1.44½	69.20	1.67¾	1.25½
1867.....	1.33	75.18	1.46¾	1.32½
1868.....	1.33¾	75.04	1.50	1.32
1869.....	1.35	74.07	1.62½	1.19½
1870.....	1.20	83.33	1.23¾	1.10
1871.....	1.10¾	90.29	1.15¾	1.08¾
1872.....	1.09½	91.32	1.15¾	1.08½
1873.....	1.12	89.28	1.19¾	1.06¾
1874.....	1.10¾	90.70	1.14¾	1.09
1875.....	1.12½	88.89	1.17¾	1.11¾
1876.....	1.12¾	88.69	1.15	1.07
1877.....	1.07	93.46	1.07¾	1.02½
1878.....	1.02%	97.21	1.02%	1.00

RESUMPTION OF SPECIE PAYMENTS.—On January 1, 1879, the Treasury with over \$114,000,000 of gold in its vaults in excess of outstanding gold certificates, began the redemption of these notes at the sub-treasury in New York as rapidly as they were presented. The redemption for that month amounted to only \$1,571,725; and the entire amount redeemed (afterward reissued) to June 30, 1893, was \$94,856,421. As the notes were, after January 1, 1879, equivalent to gold, the Treasury accepted them for duties on imports without compelling the holders to obtain the coin for that purpose.

The act of March 3, 1887, provided that thereafter the notes might be redeemed at the sub-treasury in San Francisco also.

The act of July 12, 1882, as already mentioned (*ante*, "Gold Certificates"), in a sense fixed the fund for redemption purposes at \$100,000,000; and from

May, 1885, this amount has always been considered and reported in the official statements of the Treasury as a separate and distinct fund, held for this specific purpose.

Under the construction by the Treasury of the "parity" clause of the act of July 14, 1890 (see *post*, "Treasury Notes") the fund was also used to redeem in gold, when demanded, the notes issued under this act and the fund consequently diminished rapidly, until in April, 1893, it fell below the \$100,000,000 specified, and during June, 1893, fell below \$91,000,000; since that date it has fallen as low as \$81,500,000, but subsequently again increased.

It was also held that under the act of January 14, 1875, the Treasury had power to sell "at not less than par in coin" any of the bonds authorized to be issued by the refunding act of July 14, 1870, viz., 4 per cent. 30-year bonds, 4½ per cent. 15-year bonds, or 5 per cent. 10-year bonds.

The amount of gold in the Treasury in excess of the sum required to redeem gold certificates fluctuated as follows since resumption :

Amounts of Net Gold (Coin and Bullion) in the Treasury.

(In millions of dollars.)

Years.	At the End of	Highest.	At the End of	Lowest.
1879.....	Oct.	157.1	Jan.	116.6
1880.....	Dec.	150.2	July.	115.2
1881.....	Nov.	173	Jan.	148
1882.....	Feb.	168.5	Dec.	131.9
1883.....	Oct.	157.3	Jan.	125.6
1884.....	Jan.	144.3	July.	119
1885.....	Dec.	147.9	May.	115.8
1886.....	Dec.	170.9	Jan.	136
1887.....	Dec.	208.6	Jan.	168.4
1888.....	March.	218.8	Oct.	191
1889.....	March.	197.8	Aug.	180.6
1890.....	May.	190.5	Sept.	147.9
1891.....	Feb.	149.7	June	17.76
1892.....	March.	125.8	July	110.4
1893 to Nov. 1.....	Jan.	108.1	Oct.	84.3

LEGAL TENDER AND TAXATION.—Early in the history of the United States notes the power given by the law of 1862, making them legal tender, was contested in the courts; at first (*Hepburn vs. Griswold*, 8 Wall, 603) the constitutionality of this portion of the law was denied by the Supreme Court; subsequently, however (legal-tender cases, 12 Wall, 457), this decision was reversed, and the latter decision has since then been construed as the law of the land.

The power of Congress to authorize the reissue of these notes, as provided in the act of May 31, 1878, after redemption under the resumption act, was questioned. The Supreme Court in *Juillard vs. Greenman* (110 U. S., 404) held that Congress had the power.

A further question arose as to the power to tax United States notes under State and municipal laws, the act of 1862 having declared all bonds and other securities of the United States exempt from such taxation; the Supreme Court held that the notes were "obligations" and to be classed as "securities," hence not subject to such taxation. (*Bank vs. Supervisors*, 7 Wall, 26.)

The issues of United States notes and the amount outstanding June 30, 1893, are shown below :

United States Notes (1862-1893).

Denominations.	Issues and Reissues.	Outstanding June 30, 1893.
\$1.....	\$185,796,160	\$3,396,163.20*
2.....	183,427,048	2,852,443.80
5.....	450,901,760	62,202,254.00
10.....	448,851,240	91,053,575.00
20.....	419,722,400	101,477,630.00
50.....	128,715,200	14,439,300.00
100.....	158,704,000	23,405,150.00
500.....	198,176,000	16,245,500.00
1,000.....	326,008,000	32,584,000.00
5,000* ..	20,000,000	15,000.00
10,000* ..	40,000,000	10,000.00
Total.....	\$2,560,301,808	\$347,681,016.00
Loss destroyed at Chicago fire, denominations unknown.....		1,000,000.00
		\$346,681,016.00

* The fractional parts of notes in this and other denominations indicate fractional redemptions, as explained in note (page 19).

** Issued temporarily, 1880-1882, during the suspension of the issue of gold certificates.

X. CURRENCY CERTIFICATES.

The act of June 8, 1872, authorized the issue of certificates of deposit, not to bear interest, in denominations not less than \$5,000, to national banks for United States notes; the notes to be specially held for the redemption on demand of such certificates which might be counted as part of the reserve of a national bank, and might be used to settle clearing-house balances. Such certificates have therefore been issued, payable to the order of the depositing

bank, in denominations of \$5,000 and \$10,000 ; of late years, however, only the latter denomination has been in use.

The issues of currency certificates have been as follows :

Currency Certificates (1872-1893).

Denominations.	Issues and Reissues.	Outstanding June 30, 1893.
\$5,000.....	\$102,440,000	\$245,000
10,000.....	952,730,000	11,450,000
Total	\$1,055,170,000	\$11,695,000

The preceding table indicates an extensive use of this medium by which banks are relieved of the burden of caring for a redundancy of small United States notes. The highest amount outstanding at the end of any one year (June 30) was \$59,045,000 (in 1875), and the lowest \$9,020,000 (in 1887).

XI. NATIONAL-BANK NOTES.

The act of February 25, 1863, authorized the formation of national banking associations under federal supervision, with power to issue notes. Proving defective it was repealed, and an amended act was passed June 3, 1864.

The life of each association was limited to twenty years. The minimum capital was fixed at \$50,000 ; circulating notes could be issued only upon a deposit of United States bonds to the amount of not less than \$30,000, and not less than one-third of the capital stock must be paid in, whereupon notes to an amount not exceeding 90 per cent. of the par value of the bonds, in blank, but duly countersigned by the Treasury officers (certifying that the bonds are deposited in the Treasury) were to be furnished the banks for signature and issue. No bank could receive and issue notes in excess of its capital stock. The aggregate issue was limited to \$300,000,000. The denominations of notes authorized were \$1, \$2, \$5, \$10, \$20, \$50, \$100, \$500 and \$1,000 ; but only one-sixth of the issue could be in denominations under \$5, and after the resumption of specie payments no such small notes were to be issued.

The notes were not made legal tender, but receivable at par in payment of dues to the United States, except duties on imports, and for payments by the United States except interest on public debt or redemption of national currency ; and they were receivable by any national bank at par for debts owing to it.

The bonds were provided as security for the ultimate redemption of the

notes, but each bank was obliged to redeem its own notes at its counter on demand in "lawful money," *i. e.*, legal tender, but it might, in addition, designate another national bank in any of the cities specified by the act as its redemption agent.

To provide for such redemptions, an amount of lawful money equal to 15 per cent. of the notes in circulation and of deposits was to be held either in the bank, or to the extent of 60 per cent. with its reserve or redemption agent; and the national banks in the specified cities were to have as much as 25 per cent. of their circulation and deposits in lawful money, half of which might be in New York city national banks acting as the redemption or reserve agents of banks in other "reserve cities."

Notes of failed banks were redeemed by the Treasurer from proceeds of the sales of bonds. Worn or mutilated notes were replaced by the Treasury, the cost of the notes and replacing them to be paid by the banks.

The act imposed a tax of one per cent. per annum on the average amount of circulation, determined semi-annually, and of one-half per cent. per annum on both deposits and capital stock beyond that invested in bonds of the United States. The tax on deposits and capital was repealed by act of March 3, 1883, but that on circulation remains.

Provision was also made for protesting notes when redemption was refused, and for the placing of the bank in a receiver's hands for such refusal to redeem.

The act of March 3, 1865, limited the amount of the note issue of banks with a capital in excess of \$500,000 to 80 per cent. of the capital; in excess of \$1,000,000 to 75 per cent., and over \$3,000,000 to 60 per cent.; it also provided that the aggregate amount authorized to be issued be apportioned to the banks in States and territories, \$150,000,000 according to population, and the remainder according to existing banking capital, resources and business.

The act of July 12, 1870, increased the authorized issue by \$54,000,000, to be apportioned, by preference, to States or territories having less than their quota, according to the census; no banks, organized after that date, could issue more than \$500,000 in notes; and the Treasury was directed to equalize the circulation by apportionment after (but not before) the issue of the above additional amount; reductions might from time to time be made in the amount issued by banks in States having an excess. Under the act of June 20, 1874, this equalization was to take place *before* the issue of the additional \$54,000,000, and banks were authorized to deposit lawful money with the Treasury (withdrawing their bonds) at any time to reduce circulation, not to exceed in all \$55,000,000, provided that the bonds on deposit for any one bank were not reduced below \$50,000. The additional issue was increased to \$55,000,000, to be apportioned as before provided. The act of January 14, 1875 (resumption act) repealed all

provisions limiting the increase or decrease of national-bank circulation, apportionment, etc.

The act of June 20, 1874, also abolished the requirement of a lawful-money reserve for the redemption of notes and the provision for redemption agents. It continued the requirement of reserve on account of deposits, and compelled the banks to keep on hand in the Treasury lawful money for the redemption of notes, equal to 5 per cent. of their circulation, such amount to be counted as part of the reserve for deposits; the Treasury became thus the redeeming agent, the expense being borne by the banks. They were not, however, relieved of the duty of redeeming their own notes upon demand.

The charter limit of many of the banks would have expired in 1883 and 1884; accordingly the act of July 12, 1882, provided for the extension of the charters for another period of twenty years. It also provided that banks having a capital of \$150,000 or less need not have more than one-fourth of the amount of such capital on deposit in bonds to secure circulation, thus reducing the minimum to \$12,500, the minimum capital remaining at \$50,000 as theretofore; the reduction of circulation consequent upon this provision and for other reasons was limited to \$3,000,000 per month; and a bank reducing its circulation was prohibited from again increasing it within six months.

There are a few national banks having bonds on deposit but no circulation outstanding.

The national-bank note issues and the amounts outstanding on June 30, 1893, are exhibited below.

National-Bank Notes (1864-1893).

Denominations	Issues and Reissues.	Outstanding June 30, 1893.
\$1.....	\$23,169,677	\$359,590
2.....	15,495,038	176,102
5.....	592,217,700	51,354,355
10.....	506,637,610	56,998,170
20.....	318,684,220	42,550,380
50.....	104,516,100	9,318,700
100.....	161,115,100	17,414,100
500.....	12,289,500	146,000
1,000.....	7,454,000	33,000
Total	\$1,741,578,945	\$178,350,397

The highest amount of notes outstanding at the close of any fiscal year was \$358,742,034 (in 1882), and the lowest amount \$167,550,906 (in 1891).

The tax on circulation, paid since the organization of the system, has amounted to \$74,113,902, and that on capital and deposits to \$68,750,000.

The decrease in the national-bank circulation is largely due to the decrease in the amount of the bonded debt of the United States and to the relatively high premium on the existing bonds. This latter feature compels the investment of so large an amount of money to obtain the required bonds, upon which only 90 per cent. of the par can be issued in notes and loaned, that the money if loaned out in the first instance would produce a larger income when the tax and other expenses on circulation are considered. This is especially the case when rates for money are in excess of 6 per cent., as is illustrated by the following calculation, based upon a 6 per cent. rate for money, with 4 per cent. bonds at 116¾:

\$100,000 fours at 116¾ interest.....		\$4,000.00
Circulation, 90 per cent. on par value.....	\$90,000.00	
Deduct 5 per cent. redemption fund.....	4,500.00	
Loanable circulation at 6 per cent.....	\$85,500.00	5,130.00
Gross receipts.....		\$9,130.00
Deduct:		
One per cent. tax on circulation.....	900 00	
Annual cost of redemption	137.48	
Express charges.....	3.00	
Cost of plates for circulation.....	7.50	
Agents' fees.....	7.50	
Examinations.....	43.00	
Sinking fund reinvested quarterly to liquidate premium	696.36	
		<u>1,794.84</u>
Net receipts		\$7,335.16
\$116,750 loaned at 6 per cent		7,005.00
Profit on circulation.....		<u>\$330.16</u>

If the interest rate were 7 per cent., instead of 6, the profit would be only \$18.

In other words, if the funds of a bank having \$116,000 to invest were loaned out originally at 7 per cent., instead of being used in organizing a bank under the national system, the loss would, on the face of the transaction, be only \$18, and the institution would have been free from the additional restrictions of the national-bank act.

With relatively cheap bonds, the profits are larger, but since the retirement of the 3 per cent. bonds issued under the act of July 12, 1882, all Government bonds have been relatively high in price, and limited in volume.

From 1865 to 1877, the Government issued only 5 and 6 per cent. bonds, and the volume was in excess of \$1,750,000,000; the market price of these issues ranged from \$89 to \$125 in currency.

From 1877 to 1881, $4\frac{1}{2}$ and 4 per cent. bonds took the place of most of the 6 per cents., and a portion was continued at $3\frac{1}{2}$ per cent., as were also the remaining 5 per cents. Bonds were always obtainable at par.

From 1882 to 1886, 3 per cents. replaced those bearing $3\frac{1}{2}$ per cent., and during the greater part of this period such bonds could be purchased at par, or at a slight premium; while the 4 per cents. were quoted at a premium of from 17 to 29 per cent., which placed them beyond the reach of banks. There were in 1882 still over \$1,500,000,000 of bonds in the aggregate; but by 1886, the amount had fallen below \$1,200,000,000.

Between 1886 and 1891, nearly one-third of the 4 per cents. were retired, and all but \$25,000,000 of the $4\frac{1}{2}$ per cents. were redeemed, this small amount being continued at 2 per cent.; leaving available, beside these, only \$560,000,000 of 4 per cents., and \$64,000,000 of Pacific Railroad 6 per cents., a total of about \$650,000,000, bringing, at their usual market price, an income of less than 3 per cent.

The changes of the bonded debt have been as follows, at the end of each fiscal year (June 30), from 1866 (in millions of dollars).

1866.....	1,213	1880.....	1,775
1867.....	1,634	1881.....	1,690
1868.....	2,092	1882.....	1,514
1869.....	2,166	1883.....	1,389
1870.....	2,051	1884.....	1,277
1871.....	1,953	1885.....	1,246
1872.....	1,845	1886.....	1,196
1873.....	1,760	1887.....	1,072
1874.....	1,789	1888.....	1,001
1875.....	1,773	1889.....	880
1876.....	1,761	1890.....	776
1877.....	1,761	1891.....	675
1878.....	1,845	1892.....	649
1879.....	1,952	1893.....	649

These figures include the \$84,000,000 of bonds issued in aid of Pacific railroads.

Notwithstanding the untoward conditions tending to discourage the organization of national banks, the number of banks has been increasing, although, as will be seen in the tables presented in Part II., the circulation has diminished very rapidly since 1883.

The number of national banks in existence at the dates named, with their capital stock, were as follows:

October, 1863, 66 banks	\$7,188,393 capital paid up.
October, 1873, 1,976 "	491,072,616 "
October, 1883, 2,501 "	509,699,787 "
October, 1893, 3,781 "	678,540,328 "

During the entire period to November 1, 1893, there were organized 4,930 banks with an original capital stock (not including increase of capital which frequently occurs) of \$709,978,182; 890 banks with a capital stock of \$120,623,500 went into voluntary liquidation; 246 banks with capital stock amounting to \$43,915,900 failed. Of the failed banks, which represent 5 per cent. of the entire number organized, 131 have practically settled their accounts, 62 having fully paid all creditors, some of them with interest. Of the remaining 115 more than one-half failed during the year 1893. The circulating notes of all of the banks which failed have, of course, been fully provided for.

National gold banks were authorized by the bank act of 1864 (for the Pacific slope); their notes were to be payable in gold, none to be issued in denominations less than \$5; limited in each case to 80 per cent. of the par value of the bonds deposited, and the capital of no bank to exceed \$1,000,000. The restriction as to capital was repealed January 10, 1875; the act of February 14, 1880, authorized the conversion of these banks into ordinary national banks, the need for distinct organizations having passed when resumption became assured.

NATIONAL-BANK REDEMPTION FUND.—The fund of moneys deposited to retire the notes of banks reducing circulation, or of such banks as went into voluntary or involuntary liquidation, grew to considerable proportions as will be seen by the following table. In order not to have such an amount of money kept out of circulation, Congress, by the act of July 14, 1890, provided that the amount be used by the Treasury, and the notes be redeemed, when presented, out of the general fund of the Treasury against which it should appear as a charge and be reported monthly in the statement of the debt.

The balances of "lawful money" deposits of national banks failed, liquidating or reducing circulation, to redeem their notes, were as follows:

1867.....		1881.....	\$33,146,858
1868.....	\$126,849	1882.....	37,056,729
1869.....	434,160	1883.....	36,157,910
1870.....	1,017,565	1884.....	39,368,121
1871.....	2,727,108	1885.....	38,596,332
1872.....	2,826,059	1886.....	60,248,705
1873.....	1,917,602	1887.....	97,992,918
1874.....	3,827,612	1888.....	91,952,843
1875.....	18,203,667	1889.....	78,051,136
1876.....	25,972,360	1890.....	55,619,359
1877.....	12,991,361	1891.....	40,018,392
1878.....	9,797,513	1892.....	26,763,509
1879.....	11,596,061	1893.....	20,663,437
1880.....	19,337,621		

The aggregate deposits and redemptions of notes to June 30, 1892, were :

	Deposits.	Redemptions.
Failed banks, 1867-1892	\$14,700,548	\$13,726,466
Liquidating banks, 1867-1892	158,471,899	135,199,745
Reducing banks, 1875-1892.....	318,546,206	295,181,716
Transfers from one to another account.....	\$491,718,653 20,847,217	\$444,107,927
Net deposits	\$470,871,436	
Balance at end of period.....		\$26,763,509

XII. STATE-BANK NOTES.

Prior to the act of June 3, 1864, establishing national banks, the principal part of the paper circulation of the country consisted of notes issued by banks organized under more or less liberal State charters. Such notes were in fact used before the adoption of the federal constitution and continued to circulate with the notes of the Bank of the United States (1791-1840).

The first of these banks was the Bank of North America in Philadelphia, Pa., which still exists. Organized as a private corporation, it subsequently (December 31, 1781) received a perpetual charter from the Continental Congress; in March, 1782, Massachusetts also granted it a charter, and Pennsylvania followed in April of that year. Massachusetts incorporated the "Massachusetts Bank" in 1784 and New York gave the "Bank of New York" (organized in 1784) a charter in 1791. Bank charters were also given by other States, among the early ones being: Kentucky, 1804; Tennessee, 1807; Ohio, 1808; Illinois, 1816. The number of banks and the amount of reported circulation will appear below.

In some of the States, particularly New York and Massachusetts, adequate provision was made for the redemption of the notes; but a very large proportion of the circulation was subjected to discounts, at every payment made, of from $\frac{1}{2}$ to 25 per cent., and was consequently more or less discredited.

The national-banking law provided for the conversion of the existing State banks into national banks, and Congress endeavored to encourage this movement by increasing the tax on State-bank circulation, levied by the internal-revenue laws, to 10 per cent. (act of March 3, 1865, amended by act July 13, 1866), thus practically prohibiting the further issue. Many of the State banks were converted into national banks, but a large number continued under State charters without note issues; and in late years quite a number have given

up national, for new State, charters. The gradual decrease in national-bank circulation has brought the subject of reintroducing State banks of issue, with proper security for the redemption of notes, before the people.

Statistics of State Banks at Various Dates.

(Amounts in millions of dollars.)

Years.	No. of Banks.	Capital.	Circulation.	Specie.
1784.....	3	2.1	2.0	10.0
1790.....	4	2.5	2.5	9.0
1800.....	28	21.3	10.5	17.5
1811.....	89	52.7	28.1	15.4
1820.....	308	137.2	44.8	19.8
1830.....	330	145.1	61.3	22.1
1840.....	901	358.4	106.9	33.1
1850.....	824	217.3	131.3	45.3
1860.....	1,562	421.8	207.1	83.5
1863.....	1,466	405.	238.6	101.2

The national banks now show a liability for State-bank circulation outstanding of about \$75,000, and State banks still in existence a liability of \$137,000. The amount of unredeemed notes of failed banks or of banks not now in existence is not known.

XIII. TREASURY NOTES OF 1890.

The act of July 14, 1890 (sometimes designated as the "Sherman Act") directed the Secretary of the Treasury to purchase monthly 4,500,000 ounces of fine silver bullion or so much thereof as might be offered, at the market rate, not to exceed \$1 for 371¼ grains of fine silver. (This, it will be recalled, is the weight of the pure silver in the standard dollar.) To pay for the bullion so purchased, Treasury notes, in denominations of not less than \$1 nor more than \$1,000, were to be issued.

These notes were made redeemable *in coin* at the Treasury or any sub-treasury, and might be reissued; were also made a legal tender for all debts except when otherwise expressly stipulated, and to be counted as part of the reserve of any national bank holding them.

The redemption provided for might be in gold or silver coin at the discretion of the Secretary of the Treasury, and, to provide silver for the purpose, 2,000,000 ounces were to be coined monthly until July 1, 1891, into dollars authorized by the act of February 28, 1878; thereafter such dollars to be coined when necessary to provide for such redemptions; the seigniorage arising from the coinage to accrue to the general fund of the Treasury.

So much of the act of 1878 requiring the purchase and coinage of silver was repealed.

A specific limitation of the amount of notes to be issued under the act was as follows: "No greater nor less amount . . . shall be outstanding at any time than the cost of the silver bullion, and the standard silver dollars coined therefrom, then held in the Treasury, purchased by such notes." Thus if the bullion purchased cost \$10,000,000 and \$5,000,000 worth thereof were coined into dollars, producing, owing to the low price of silver, \$6,500,000 of such dollars, \$5,000,000 of the coin and the remaining \$5,000,000 worth of bullion must be held for the notes issued, the balance of \$1,500,000 being the profit or seigniorage accruing to the Treasury; and on such dollars, when in the Treasury, silver certificates were issued as provided by the act of 1878.

An important clause of the act of 1890 was the one declaring it to be "the established policy of the United States to maintain the two metals (gold and silver) on a parity with each other, upon the present legal ratio (15.988 to 1) or such ratio as may be provided by law."

In order to accomplish this, it became necessary, when Treasury notes were presented for redemption, to pay on demand either gold or silver as the *holder* might prefer; a refusal to do so would have made the notes silver notes. Congress having provided no special gold fund for this purpose, the available gold in the Treasury was used for this purpose; occasion having soon thereafter arisen for large exportation of gold, this fund was drawn upon very heavily and seriously decreased, as has been shown before. (*Page 23.*) Treasury notes were redeemed in gold to June 30, 1893, to the amount of about \$58,750,000. The notes so redeemed, as well as considerable amounts, aggregating probably \$5,000,000, which were redeemed in silver dollars, were afterward reissued. Subsequently notes redeemed in silver dollars were canceled.

For a short period currency certificates were issued to national banks on deposit of these notes.

By the act of November 1, 1893, the portion of the law of 1890, directing the purchase of silver and the issue of Treasury notes, was repealed.

The following statement shows the purchases, coinage and issues of notes under the operation of the law of 1890, which went into effect August 13, 1890, and continued until November, 1893:

Silver bullion purchased, 168,674,682 fine ounces;	cost, \$155,931,002	
Bullion coined into dollars, 27,974,857 ounces;	"	29,172,722
Leaving uncoined.....	140,699,825 ounces;	" \$126,758,280
The bullion produced.....	\$36,087,285	
Of which deposited in the Treasury to secure the Treasury notes and as profit to the Treasury (seigniorage).....	6,837,801	29,172,722
The Treasury-note issue aggregated		\$155,931,002

There have been redeemed in silver dollars and canceled \$2,500,000 of these notes ; this operation began August 3, 1893, and continues.

The bullion now in the Treasury is sufficient to coin about 182,000,000 standard dollars ; to provide for the redemption of the Treasury notes in silver, only 126,758,280 standard dollars are required, so that when the bullion shall have been coined the seigniorage or profit to the Treasury will amount to about \$55,000,000. It would take probably five years to coin the bullion into dollars.

The notes issued and outstanding by denominations were as follows :

Treasury Notes of 1890. (1890-1893.)

Denominations.	Issues and Reissues.	Outstanding June 30, 1893.
\$1	\$17,930,106	\$13,298,993
2	17,752,000	12,359,654
5	44,940,000	36,936,070
10	52,280,000	43,968,670
20	22,800,000	20,337,740
50	800,000	793,700
100	12,070,000	7,681,400
500 .....	.....	.....
1,000	29,800 000	11,814,000
Total.....	\$198,372,106	\$147,190,227

XIV. OTHER TREASURY NOTES AND CERTIFICATES.

Treasury notes were issued during several extraordinary periods in the financial history of the country ; but never before 1861 were such notes issued without bearing interest.

The first period was 1812-1815, during, and for the purpose of carrying on, the "war of 1812." The general form adopted for this first issue of notes was continued in the later ones ; they were usually in denominations of \$100, payable to order, receivable for all payments to the Government and payable to public creditors. The acts of June 30, 1812, February 25, 1813, March 4 and December 26, 1814, authorized the issue in the aggregate of \$35,500,000 one-year notes, the issues of each year providing for the redemption of those of the previous year. The actual issues amounted to \$28,318,400, bearing interest at the rate of 5 2-5 per cent. (or 1½ cents per day on \$100).

The act of February 24, 1815, provided for the issue of \$25,000,000 of notes, redeemable within nine years, and convertible into bonds, a portion to be issued in small denominations ; the latter were payable to bearer and bore

no interest until converted into bonds. Authority was given to reissue notes received or converted. The total issue amounted to \$8,362,394, and the reissues to \$7,182,740. These "war of 1812 notes" were very soon retired, either by redemption or conversion into bonds.

The second period, 1837-1843, followed the financial panic of 1837; the Treasury had up to 1836 accumulated a large surplus; the United States had no outstanding debt not provided for; and accordingly Congress by act of June 23, 1836, directed the distribution of the surplus to the States, according to population, in four installments; three of these installments were paid, the sum being somewhat in excess of \$28,000,000. The fourth installment has never been paid. The disaster of 1837 left the Treasury poor, and further issues of notes were resorted to.

The amounts authorized by the acts passed each year aggregated \$31,000,000, payable in one or two years, with interest at not more than 6 per cent. nor less than 1 mill (\$0.001) per cent. Two millions were actually issued at this latter rate. The authority to reissue notes received for public dues brought the entire issue to over \$47,000,000; more than \$46,000,000 were retired by 1845; but very few of these notes are now unredeemed.

The third period, 1846-1847, was during the Mexican war. The rates of interest were the same as during the preceding period; \$33,000,000 were authorized, and only \$809,900 of notes were reissued; all but \$200,000 were retired prior to 1851.

The fourth period, 1857-1861, followed the panic of 1857. The authorizing acts were passed December 23, 1857, December 17, 1860, and March 2, 1861. Under these \$98,154,250 in notes were issued (including reissues) at rates of interest from 3 to 12 per cent. Almost all these notes were redeemed or converted into bonds within two years from the date of issue.

The issue of interest-bearing notes during the period of the civil war amounted to nearly \$1,450,000,000. First, under the act of July 17, 1861, three-year notes, bearing 7 3-10 per cent. (2 cents per day on \$100) were issued to the amount of \$140,094,750; following this, under the act of March 3, 1863, \$44,520,000 one-year, 5 per cent. notes, and \$166,480,000 of two-year, 5 per cent. notes were issued in denominations of from \$10 to \$1,000; these notes were legal tender, the same as the United States notes still in circulation. Under an extension of the last-mentioned act by that of June 30, 1864, \$266,675,440 of three-year notes, bearing 6 per cent. *compound* interest, also a legal tender, and in about the same denominations, were issued. The act of 1864, amended by that of March 3, 1865, gave authority for the issue of \$829,992,500 of three-year notes, bearing 7 3-10 per cent. interest, but without the legal-tender power. Subsequent laws permitted the conversion of these last-mentioned notes into bonds.

Of this vast issue of notes all but about \$360,000 have been redeemed or converted.

During the civil-war period, many forms of certificates were issued, not to serve the purpose of circulation, but in some cases available for reserves of national banks, thus in a measure supplementing "lawful money" issues.

Temporary loan certificates were issued for thirty-day periods, on deposits of money or to public creditors, at 4, 5 and 6 per cent. The act of February 25, 1862, limited the amount to \$25,000,000 (outstanding at any one time); that of March 17, 1862, increased it to \$50,000,000, that of July 11, 1862, to \$100,000,000, and finally that of June 30, 1864 to \$150,000,000. Altogether the issues and reissues amounted to \$716,099,247; all but about \$3,000 have been retired.

The act of March 1, 1862, authorized the issue of 6 per cent. certificates of indebtedness, to run one year, to be paid to public creditors. The amount authorized was not fixed. The issue ceased in 1866, after \$561,753,241 had been issued. About \$4,000 remain unpaid on this account.

Certificates of deposit bearing 3 per cent. were issued to redeem compound-interest notes, under the act of March 2, 1867, not to exceed \$50,000,000; the act of July 25, 1868, authorized the issue of \$25,000,000 additional. Including reissues, \$88,155,000 were placed, of which \$5,000 remain unredeemed.

Certificates amounting to \$678,000, payable in five years, and bearing 4 per cent., were issued under the act of July 8, 1870, to pay the State of Massachusetts for certain war expenditures in 1815. All have been retired.

Refunding certificates were issued under the act of February 26, 1879, in the denomination of \$10 only, to aid in refunding the bonded debt, giving small investors an opportunity to obtain bonds. They bear interest at the rate of 4 per cent. payable only on conversion into 4 per cent. bonds; they are convertible, *principal and interest*, into such bonds, in sums of \$50 or any multiple; \$40,012,750 was the limit of the issue; \$64,690 remained unconverted November 1, 1893.

XV. FRACTIONAL CURRENCY.

The suspension of specie payments caused not only gold, but silver as well, to be hoarded and exported; and soon thereafter the subsidiary silver coin, required for "small change," disappeared from circulation. Private institutions and firms began to provide small paper change of various forms, and postage stamps were also resorted to. Congress by act of July 17, 1862, prohibited the further issue of such currency by individuals, and provided for the issue of stamps; this was followed by an issue of "postal currency," on which the fac-similes of stamps appeared; it began August 21, 1862, and notes of the denomination of 5, 10, 25 and 50 cents were circulated, and made receivable for all public dues less than five dollars, and redeemable in notes in like sums.

The act of March 3, 1863, which first gave this currency the designation "fractional," also provided that it be received for all public dues as before, except duties on imports, and the act limited the issue to \$50,000,000, made the notes redeemable in sums of three dollars, and permitted reissues to replace worn pieces. The act of June 30, 1864, extended the authority somewhat, and under it notes of 3 cents (the then existing single letter postage rate) and of 15 cents were issued.

The act of March 3, 1865, directed the issue of a 3-cent nickel coin, and the further issue of this denomination of notes ceased; under the act of May 16, 1866, a 5-cent nickel coin superseded the 5-cent note. In 1874 the Treasury discontinued the issue of the 15-cent notes.

The act of January 14, 1875 (repeated in the act of April 17, 1876) provided for the coinage of subsidiary silver to replace all the fractional currency; and the issue ceased February 15, 1876.

But the fractional notes were popular, and the redemption was slow. Congress therefore by joint resolution of July 22, 1876, directed the issue of \$10,000,000 of subsidiary coin in lieu of United States notes, which notes were to be held as a fund for the redemption of the fractional currency. This latter proviso was repealed by the act of June 21, 1879. On June 30 of that year the amount of fractional currency unredeemed was \$15,842,610.11; on June 30, 1893, it was still over \$15,250,000, of which amount it was estimated over \$8,000,000 had been destroyed, and would never be presented; the remainder is still carried as a liability of the Treasury.

Statistics relating to this currency are given below :

Fractional Currency, 1862-1876. By Denomination.

Denominations.	Amounts Issued.	Outstanding June 30, 1892.
3 cents.....	\$601,923.90	\$90,246.97 *
5 cents.....	5,694,717.85	1,858,955.90
10 cents.....	82,198,456.80	5,063,642.27
15 cents.....	5,305,568.40	240,503.64
25 cents.....	139,031,482.00	4,284,724.12
50 cents.....	135,891,930.50	3,773,328.05
Total	\$368,724,079.45	\$15,311,400.95
Less destroyed at Chicago fire, denomination unknown.....		32,000.00
Unredeemed June 30, 1892		\$15,279,400.95

* The general rule as to redemption of mutilated pieces for the fractional value also applied to these notes.

By Issues.

Issues.	Year.	Amounts Issued.	Outstanding June 30, 1892.
1st.....	1862-1863	\$20,215,635.00	\$4,280,281.25
2d.....	1863-1867	23,164,483.65	3,105,374.93
3d.....	1864-1869	86,115,028.80	2,978,233.17
4th.....	1869-1875	176,567,032.00	3,670,345.01
5th.....	1874-1876	62,661,900.00	1,245,166.59
Total.....		\$368,724,079.45	\$15,279,400.95

The number of pieces issued was 1,819,223,300.

THE CLEARING-HOUSE SYSTEM.

The proportion of money actually used in settlement of commercial and financial transactions is estimated to be less than 10 per cent. of the aggregate of such transactions, the use of cash being avoided by the substitution of bank checks and drafts. Moreover, to save the risk and expense incurred in handling the actual cash by collecting the checks from the bank or institution where they are payable, a system is established of mutually exchanging these obligations, and settling in cash the resulting balances only. The system was adopted in London, prior to 1840, and in New York in 1853. Other cities in the United States followed later. In some cases the settlements are made in checks issued by the manager of the "Clearing House," and not in actual cash, which causes a further saving. In England the system has been extended so as to include provision for the "clearing" in the London institution, of checks upon banks throughout the country. Such an extension of the system in New York is a possible, if not probable, improvement of the mechanism of financial transactions.

The economy of this system can be best illustrated by the statement that in New York city, the exchange of \$125,000,000 in checks can be made with less than \$5,000,000 of cash.

The annual exchanges of all clearing houses in the United States now aggregate more than \$62,000,000,000. For the past 15 years they have been as follows (in millions of dollars) :

1878.....	27,814	1886.....	49,294
1879.....	38,526	1887.....	51,147
1880.....	49,990	1888.....	49,541
1881.....	63,471	1889.....	56,175
1882.....	60,878	1890.....	60,829
1883.....	51,731	1891.....	56,947
1884.....	44,200	1892.....	62,109
1885.....	41,474		

XVI. CLEARING-HOUSE CERTIFICATES.

Associations of banks in the larger cities, forming clearing houses, have at various times, during periods of stringency, issued and used among themselves, to settle balances at their clearing houses, certificates upon securities deposited with a constituted authority, usually a "loan committee." The securities so used are generally of a character such as makes them immediately available in the market, if need should arise, and the certificates are issued only to the extent of 75 per cent. of the value of the securities.

In New York, such certificates were used during the stringency following the panic of 1873, the issue amounting to \$26,565,000, between September 20, 1873, and January 14, 1874. The highest amount in use at any one date was \$22,410,000. In 1884, from May 15 to October 3, \$24,915,000 were issued, the highest amount outstanding having been \$21,885,000. During the stringency in 1890, certificates were first issued on November 11, continuing to February 7, 1891, the maximum outstanding having been \$15,205,000 in December. Again in 1893, an issue began in June; the last certificates were retired by November 1. The aggregate issue was \$41,490,000, but the largest amount outstanding at any time was \$38,280,000 from August 29 to September 6.

Philadelphia banks used nearly \$10,000,000 of such certificates in 1890, another issue was made in 1893, when Boston and other cities also made use of this device. While these certificates were, during the recent disturbances, used only for clearing-house purposes in the larger cities, they circulated more or less as money in the smaller ones, in some cases certificates in amounts as small as 25 cents having been issued and circulated.

In many of the manufacturing centres certified checks and pay vouchers have been used more or less in lieu of currency which was not obtainable.

Another form of clearing-house certificates has been used in the cities of New York and Philadelphia, representing gold coin actually deposited with a specified institution, to save the expense and abrasion incident to the handling of the actual coin. The issue of these certificates began during the period when the Treasury discontinued its issue of gold certificates (1879-1882), and reached in New York a maximum of nearly \$42,000,000; these were all retired by 1888; Philadelphia banks, however, continue to use about \$10,000,000 of these issues. The suspension of the issue of gold certificates by the Treasury in 1893 imposed considerable expense for transferring coin upon the banks, and in New York another issue of these certificates has been determined upon.

The currency certificates issued by the Treasury and other certificates prior to this issue have sometimes (inaccurately) received the title "Clearing-House Certificates," because used in those institutions.

THE MONEY OF THE UNITED STATES.

Table Showing the Present Status of the Moneys of the United States.

	Gold Coin.	Gold Certificates.	Silver Dollars.	Silver Certificates.	United States Notes.	Currency Certificates.	Treasury Notes of 1890.	National Bank Notes.	Subsidiary Silver Coin†	Minor Coin.
Weight.....	25.8 grains to the dollar.	-----	412.5 grains.	-----	-----	-----	-----	-----	385.8 gr. to the dollar.	5c. piece
Fineness.....	900-1000	-----	900-1000	-----	-----	-----	-----	-----	900-1000	77.16 grains. 75% copper.
Ratio to Gold..	-----	-----	15.988 to 1	-----	-----	-----	-----	-----	14.508 to 1	35% nickel.
Limit of Issue.	Unlimited; coinage free.	Issue suspended so long as free gold in Treasury is below \$100,000,000.	Requirement to redeem Treasury Notes.	Silver dollars in use.	\$346,651,016	The same as United States notes.	\$156,044,615	Volume of United States bonds and their cost.	Needs of the country.	1c. piece.
Denominations	\$20 10 5 2½	\$10,000 5,000 1,000 500 100 50 20 10 5 2 1	\$1	\$1,000 500 100 50 20 10 5 2 1	\$1,000 500 100 50 20 10 5 2 1	\$10,000	Unlimited unless otherwise contracted.	\$1,000 500 100 50 20 10 5	Needs of the country.	48 grains. 95% copper.
Legal Tender..	Unlimited.	Not a tender.	Unlimited unless otherwise contracted.	Not a tender.	Unlimited unless otherwise contracted.	Not a tender.	Unlimited unless otherwise contracted.	Not a tender.	Not to exceed \$10.	5% tin and zinc.
Receivable	For all dues.	For all public dues.	For all dues.	For all public dues.	For all dues.*	Not receivable.	For all dues.	For all dues except duties on imports and interest on public debt.	To the amount of \$10 for all dues.	Needs of the country.
Exchangeable .	For certificates under the limitation.	For gold coin at the Treasury, or any other moneys.	For silver certificates or smaller coin at the Treasury.	For dollars or smaller coin at the Treasury.	For all kinds of moneys except gold certificates.	For United States notes.	For all kinds of moneys except gold certificates.	For silver and minor coin.	To the amount of \$10 for all dues.	5 cents.
Redeemable	-----	In gold coin at the Treasury.	And may be deposited for silver certificates.	In silver dollars.	In coin at sub-treasury in New York and San Francisco in sums of \$50 and over.	In United States notes at the sub-treasury where issued.	In coin at the Treasury.	In "lawful money" at the Treasury or bank of issue.	For minor coin.	1 cent.
									In "lawful money" at the Treasury in sums of \$20 or any multiple.	Not to exceed 25 cents.
									To the amount of 25 cents for all dues.	Not to exceed 25 cents.
									In "lawful money" at the Treasury in sums of \$20 or any multiple.	To the amount of 25 cents for all dues.

* Duties on imports by regulation only. † Not available for bank reserves.

PART II.

THE VOLUME OF THE CURRENCY.

As stated in the introduction, the statistics relating to the volume of the currency of the United States are, for the purposes of such a comparison as is herein proposed, sufficiently accurate, excepting only the estimates of the gold in the country.

In the following tables the amounts are given in the nearest million (thus \$5,789,000 is stated as 6); slight inaccuracies in making up aggregates will therefore necessarily appear here and there; but as they are *never in excess of* one million dollars, these inaccuracies do not in any material sense affect the value of the comparative tables; and the method employed is by far the most practicable.

Whenever amounts or figures are given otherwise than in millions (or decimals thereof) the specific designation is stated.

The period selected is from 1873, the year in which the coinage laws were revised, to 1893, a period of twenty years of most interesting and important monetary legislation. It includes the entire history of the struggle to use and maintain silver in the currency of the country.

The estimates and reports of the Treasury department are used exclusively in these tables, excepting where it is specifically stated otherwise. The first of the tables (A.) gives the entire stock of money, the metallic distinguished from the paper, and the amounts in circulation, as well as the amounts held in the Treasury. Of the latter a large portion is, as was indicated in Part I, merely on deposit to represent certificates in circulation; that portion belonging to the Treasury, and used in its daily disbursements, is properly a part of the effective stock, fluctuating with the daily revenue receipts and expenditures of the Government, and with the occasional investment of the surplus in the purchase and cancellation of bonds.

The "Money in Circulation" includes that held by banks, which constitutes their reserves; and the "Entire Stock" embraces the moneys on deposit in the Treasury, as well as the certificates issued upon such deposits. This sum is therefore duplicated in the figures showing the aggregate stock.

Obviously, only the money in the Treasury owned by the Government, and that in circulation and in banks can be deemed *effective circulation*. The amount of this stock is shown in the last column of the table.

A.—Table Showing the Entire Monetary Stock, its General Character and Location.

(In millions of dollars.)

End of Fiscal Year.*	The Entire Stock.			In Circulation.			In the Treasury.						Total Effective Stock.
	Metal.	Paper.	Total.	Metal.	Paper.	Total.	Metal.	Paper.	Total.	On De- posit Only.	Belong- ing to it.		
1873	152	804	956	77	752	829	75	52	127	71	56	885	
1874	161	847	1,008	89	761	850	72	86	158	82	76	926	
1875	138	837	975	75	735	810	63	102	165	80	85	895	
1876	155	784	939	94	692	786	61	92	153	62	91	877	
1877	207	778	985	113	677	790	94	101	195	96	99	889	
1878	301	763	1,064	151	656	807	150	107	257	93	164	971	
1879	363	725	1,088	186	638	824	177	87	264	49	215	1,039	
1880	500	725	1,225	300	678	978	200	47	247	35	212	1,190	
1881	653	770	1,423	397	722	1,119	256	48	304	69	235	1,354	
1882	709	789	1,498	442	736	1,178	267	53	320	85	235	1,413	
1883	776	887	1,663	432	804	1,236	343	83	426	184	242	1,478	
1884	799	917	1,716	426	816	1,242	373	101	474	231	243	1,485	
1885	872	973	1,845	424	866	1,290	448	107	555	310	245	1,535	
1886	903	920	1,823	457	792	1,249	446	128	574	265	309	1,558	
1887	1,008	902	1,910	480	837	1,317	528	65	593	276	317	1,634	
1888	1,092	985	2,077	498	874	1,372	594	111	705	386	319	1,691	
1889	1,100	992	2,092	482	898	1,380	618	94	712	434	278	1,658	
1890	1,152	1,004	2,156	484	945	1,429	668	59	727	471	256	1,685	
1891	1,162	1,054	2,216	524	975	1,499	638	79	717	540	177	1,676	
1892	1,232	1,139	2,371	528	1,075	1,603	704	64	768	620	148	1,751	
1893	1,207	1,110	2,317	526	1,068	1,594	681	42	723	584	139	1,733	

* The fiscal year ends on June 30.

It will be observed that the metallic stock has increased \$1,055,000,000—from \$152,000,000 to \$1,207,000,000—due not only to the acquisition of silver, but in almost as important a degree to the gain in gold. The increase in paper money has been largely confined to the portion in circulation.

The column showing Money on Deposit in the Treasury indicates that the principal increase has been in paper representatives or certificates, and not in notes. The increase in the effective stock has been nearly 100 per cent., a larger ratio than is shown by the money in circulation, indicating generally a much better condition of the Treasury. This latter statement must, however, be considered in connection with the fact that since 1879 the Treasury has held about \$100,000,000 of gold as a reserve for the redemption of its notes; but even if this be eliminated, the Treasury's net cash has, with the exception of the last two years, shown a decided improvement.

The second table (B.) shows the kinds of money constituting the entire stock. Here the increase of the gold stock of the country is shown, having

risen from \$135,000,000 in 1873 to over \$700,000,000 in 1888; diminishing under the influence of European demands in more recent years. (As to over-estimates, see table G.)

B.—Table Showing by Kinds the Money Composing the Entire Stock.

(In millions of dollars.)

End of Fiscal Year.	Metallic Stock.				Paper Stock.								Total Stock.
	Gold Coin and Bullion.	Silver Dollars and Bullion.	Subsidiary Silver Coin.	Total.	Gold Certificates.	Silver Certificates.	United States Notes.	Treasury Notes of 1880.	National Bank Notes.	Currency Certificates.	Fractional Currency.	Total.	
1873	135	....	17	152	39	..	356	..	347	32	30	804	956
1874	142	....	19	161	23	..	382	..	352	59	31	847	1,008
1875	110	....	28	138	22	..	376	..	354	58	27	837	975
1876	113	....	42	155	29	..	370	..	333	33	19	784	939
1877	145	....	62	207	41	..	360	..	317	55	5	778	985
1878	213	16	72	301	44	2	347	..	323	47	..	763	1,064
1879	246	41	76	363	15	3	347	..	329	31	..	725	1,088
1880	352	69	79	500	8	12	347	..	344	14	..	725	1,225
1881	478	95	80	653	6	51	347	..	354	12	..	770	1,423
1882	507	122	80	709	5	67	347	..	357	13	..	789	1,498
1883	543	152	81	776	82	89	347	..	356	13	..	887	1,663
1884	545	179	75	799	98	121	347	..	339	12	..	917	1,716
1885	589	208	75	872	140	140	347	..	317	30	..	974	1,846
1886	591	237	75	903	131	116	347	..	308	18	..	920	1,823
1887	655	278	75	1,008	121	146	347	..	279	9	..	902	1,910
1888	706	310	76	1,092	142	229	347	..	252	15	..	985	2,077
1889	680	344	76	1,100	154	263	347	..	211	17	..	992	2,092
1890	695	380	77	1,152	157	302	347	..	186	12	..	1,004	2,156
1891	647	437	78	1,162	152	314	347	50	167	24	..	1,054	2,216
1892	664	491	77	1,232	157	332	347	101	172	30	..	1,139	2,371
1893	592	538	77	1,207	94	331	347	147	179	12	..	1,110	2,317

The increase in silver dollars and bullion has been continuous since 1878, when the acquisition began, as much as \$538,000,000 having been added.

Attention is directed to the fact that the reported gold stock of the country increased about in the same proportions as the silver stock during the period; in 1893 the stock of silver was somewhat in excess of that of gold.

The fractional currency disappears practically by 1876, subsidiary silver coin taking its place.

The marked decrease in national bank notes after 1893, and the extent to which silver certificates have been substituted and have supplied the needs, is clearly illustrated.

The third table (C.) exhibits the amounts of money of all kinds in circula-

tion (including bank holdings). After the period of contraction following upon the passage of the law providing for the resumption of specie payments (1875) the amount of money outside of the Treasury increased steadily until 1886; the sharp contraction in that year marks a general period of scanty circulation (to be analyzed hereafter) followed by six years of further increase of the volume, reaching its maximum in 1892.

C.—Table Showing by Kinds the Money in Circulation.

(In millions of dollars.)

End of Fiscal Year.	Metal.				Paper.								Total in Circulation.
	Gold Coin.	Silver Dollars.	Subsidiary Silver Coin.	Total.	Gold Certificates.	Silver Certificates.	United States Notes.	Treasury Notes of 1890.	National Bank Notes.	Currency Certificates.	Fractional Currency.	Total.	
1873	63	..	14	77	34	..	317	..	339	32	30	752	829
1874	74	..	15	89	18	..	313	..	340	59	31	761	850
1875	53	..	22	75	18	..	292	..	340	58	27	735	810
1876	58	..	36	94	25	..	299	..	316	33	19	692	786
1877	56	..	57	113	32	..	284	..	301	55	5	677	790
1878	85	1	65	151	25	..	275	..	310	46	..	656	807
1879	111	8	67	186	15	..	272	..	321	30	..	638	824
1880	226	19	55	300	8	6	313	..	337	14	..	678	978
1881	315	29	53	397	6	39	316	..	349	12	..	722	1,119
1882	358	32	52	442	5	55	312	..	351	13	..	736	1,178
1883	345	35	52	432	60	73	310	..	348	13	..	804	1,236
1884	340	40	46	426	71	96	307	..	330	12	..	816	1,242
1885	342	38	44	424	127	101	302	..	307	30	..	867	1,291
1886	358	53	46	457	76	88	306	..	304	18	..	792	1,249
1887	376	55	49	480	91	142	318	..	277	9	..	837	1,317
1888	392	55	50	498	120	200	294	..	245	15	..	874	1,372
1889	377	54	51	482	117	257	300	..	207	17	..	898	1,380
1890	374	56	54	484	131	297	323	..	182	12	..	945	1,429
1891	408	58	58	524	121	307	324	40	162	21	..	975	1,499
1892	409	57	62	528	141	327	312	98	167	30	..	1,075	1,603
1893	404	57	65	526	93	326	321	141	175	12	..	1,068	1,594

An examination of the details shows that a very large part of the increase has been due to the addition to the gold stock, which even if the correctness of the estimates be not admitted, has been large; this is all the more marked when the gold certificates in actual use are treated as gold.

Silver dollars, notwithstanding the free transportation afforded by the Government when they are issued, have not been in great demand, not more than 58,000,000 of the entire coinage having been in use at the end of any fiscal year (although at other periods during several years, a maximum of 64,000,000 and even 67,000,000 has been reached). Silver certificates, however, have per-

formed a very large part of the work of money, having been issued in late years to the full extent of the capacity of the Treasury under the law. This was chiefly due to the issue, after 1886, of the smaller denominations of this medium.

Subsidiary silver, the circulation of which was materially lessened by the displacing effect of the output of silver dollars, has since the issue of the pieces of new design gained considerably in popularity; and its use appears now almost as great as at the period (1879) when it was at its maximum.

The reported metallic circulation appears to have increased fully seven-fold since 1873.

The United States notes have, since the contraction in 1875-78, been fixed in volume; and the amount in use, if considered together with the currency certificates, has been very near the limit fixed by law throughout the period. National-bank notes have decreased fully 50 per cent., showing only a slight reaction in the last two years from the steady decrease since the maximum year, 1882, when the volume increased under the influence of the issue of cheap government bonds, which were subsequently redeemed.

The most important increase of money during the entire period was from 1891 to 1892, during which year the amount of the addition to the circulation was fully \$104,000,000, due largely to the issue of Treasury notes for silver purchases under the law of 1890. As will be shown more distinctly in subsequent pages, this redundant money supply caused the decrease in gold and its representative certificates during the following year, the amount of these forms of money having diminished from \$550,000,000 in 1892 to \$497,000,000 in 1893; the aggregate circulation was, however, maintained at very nearly the highest point by the further issue of Treasury notes.

Table D., the fourth of the series, shows the money in the Treasury in detail. The first section is devoted to the money belonging to the Government, representing practically the surplus in the Treasury at the end of each year. From 1879, however, this surplus includes the \$100,000,000 gold reserve, although this amount was not separately and specifically treated as such reserve in the financial statements until 1885. It will be observed that the year in which this surplus shows the greatest increase, corresponds with the year of the sharp contraction of the money in circulation (1886). The cause of this is not difficult to discover after an examination of the tables.

In the year 1885 the gold in the Treasury not held for certificates was only \$6,000,000 above the reserve, and with the gold certificates held (\$14,000,000) made the entire stock of available gold only \$20,000,000. On the other hand, the silver dollars which could not be put into circulation, had, notwithstanding all efforts to induce their being used, increased to \$30,000,000, and the certificates lying useless in the vaults aggregated \$39,000,000; and this silver hoard was constantly increasing, threatening to deprive the Treasury of all its free gold; in

D.—Table Showing by Kinds the Money in the Treasury.
(In millions of dollars.)

End of Fiscal Year.	Belonging to the Treasury.										On Deposit Only.				Total in the Treasury.	
	Metal.				Paper.						Total.	Gold for Gold Certificates.	Silver for Silver Certificates and Treasury Notes.	United States Notes for Certificates.		Total.
	Gold Coin and Bullion.	Silver Dollars.	Subsidiary Silver Coin.	Total.	Gold Certificates.	Silver Certificates.	United States Notes.	Treasury Notes of 1890.	National-Bank Notes.	Total.						
1873	33	..	3	36	5	..	7	..	8	20	56	39	..	32	71	127
1874	45	..	4	49	5	..	10	..	12	27	76	23	..	59	82	158
1875	35	..	6	41	4	..	26	..	14	44	85	22	..	58	80	165
1876	26	..	6	32	4	..	38	..	17	59	91	29	..	33	62	153
1877	48	..	5	53	9	..	21	..	16	46	99	41	..	55	95	195
1878	84	13	7	104	19	2	26	..	13	60	164	44	2	47	93	257
1879	120	30	9	159	..	3	45	..	8	56	215	15	3	31	49	264
1880	118	37	24	179	..	7	19	..	7	33	212	8	13	14	35	247
1881	157	15	27	199	..	12	19	..	5	36	235	6	51	12	69	304
1882	143	24	28	195	..	12	22	..	6	40	235	5	67	13	85	320
1883	116	28	28	172	22	16	24	..	8	70	242	82	89	13	184	426
1884	107	20	29	156	27	23	28	..	9	87	243	98	121	12	231	474
1885	106	30	31	167	14	39	15	..	10	78	245	140	140	30	310	555
1886	102	68	29	199	55	28	23	..	4	110	309	131	116	18	265	574
1887	158	76	27	261	30	4	20	..	2	56	317	121	146	9	276	593
1888	172	25	26	223	22	29	38	..	7	96	319	142	229	15	386	705
1889	150	26	25	201	37	6	30	..	4	77	278	154	263	17	434	712
1890	164	23	23	210	26	4	12	..	4	46	256	157	302	12	471	727
1891	87	15	20	122	31	7	1	10	6	55	177	152	364	24	540	717
1892	99	..	15	114	15	5	5	4	5	34	148	157	433	30	620	763
1893	94	3	12	109	1	5	14	6	4	30	139	94	478	12	584	723

Note.—To ascertain the amount of *free gold* in the Treasury, add amounts in first and fifth columns. fact, as will be seen, the silver stock, dollars and certificates, increased to \$96,-000,000 by the end of 1886. Accordingly bond redemptions, which had kept the surplus at lower figures, were for a time discontinued, and in 1886 the Treasury had added to its gold holdings (including certificates) \$37,000,000; moreover, soon after the end of the fiscal year, the issue of \$1, \$2 and \$5 silver certificates was authorized; and after another year the silver stock gradually diminished, and the gold holdings grew larger.

To give the small silver certificates a wider field, the United States notes of the same denominations were withdrawn to a considerable extent (see table E., *post*).

The silver purchase law of 1890 (which, as has been explained in Part I., placed the gold in the Treasury practically at the disposal of holders of the notes issued under authority of that law) enabled exporters of gold to obtain

readily the **yellow metal** to supply demands which arose at about the same time in several European countries. The gold stock of the Treasury, which at the end of the fiscal year 1890 stood at \$190,000,000, fell to \$118,000,000 in 1891, to \$114,000,000 in 1892, and finally to \$95,000,000 in 1893, a loss of \$95,000,000, or 50 per cent. in three years. The remainder of the gold exported was provided by the banks, which during the same period surrendered \$63,000,000 of gold certificates. (See imports and exports of gold, Table K.)

The total metallic money in the Government's possession was highest in 1888, and this was likewise the period of its largest gold holdings. The suspension of the issue of gold certificates in 1879 apparently tended to reduce the gold holdings of the Treasury in the subsequent years, and the reissue of this form of money probably aided in the recovery of considerable gold.

The columns showing Money on Deposit Only in the Treasury exhibit the gratifying tendency to limit the issue and use of "uncovered" paper money. While most of the European nations showed a marked increase of this form of circulation, the United States has issued no paper, not protected by either gold or silver, since the resumption of specie payments in 1879. The increase of paper money of Government issue since that date has been \$554,000,000, the maximum in 1892 showing \$572,000,000. All of this has been "covered."

In this connection the following table showing the relation which the free gold in the Treasury bore to the paper issues, is of special interest. The Government notes in circulation are, strictly speaking, the only direct charge on the free gold; but the other forms of paper, excluding the gold certificates, are, ultimately, indirectly dependent on the same stock.

(Amounts in millions of dollars.)

End of Fiscal Year.	Free Gold in Treasury.	Notes in Circulation.*	Per Cent. of Gold to Notes.	All Paper in Circulation.* *	Per Cent. of Gold to Paper.
1878.....	104	321	32.4	631	16.5
1879.....	120	302	39.7	623	19.4
1880.....	118	327	36.1	670	17.6
1881.....	157	328	47.9	716	21.9
1882.....	143	325	44	731	19.6
1883.....	138	323	42.5	744	18.5
1884.....	134	319	42	745	18
1885.....	120	331	36.6	739	16.2
1886.....	157	324	48.1	716	21.9
1887.....	187	327	57.2	746	25.1
1888.....	194	307	62.8	754	25.7
1889.....	187	317	59	781	23.9
1890.....	190	335	56.7	814	23.3
1891.....	118	385	30.7	854	13.8
1892.....	114	440	25.9	934	12.2
1893.....	95	474	17.9	975	9.8

* Includes Treasury notes after 1890. ** Includes United States notes, Treasury notes, national bank notes and silver certificates, but not gold certificates, which are secured by gold in full.

The existence of a surplus of subsidiary silver, heretofore mentioned, is manifested by the very large amounts which the Treasury has been compelled to redeem under the act of 1879; this form of money, not being available for anything but "change," unless specifically demanded, is idle cash in the vaults; only in the last two years of the period has there been any extensive utilization of this idle fund, which in 1885 only helped to increase the embarrassment of the Treasury, and to this day remains a troublesome incubus.

The table marked E. and presented in two parts, shows the denominations of each kind of paper money outstanding at the end of each year, grouping the notes of \$1 and \$2 together, but separating the \$5, \$10 and \$20 notes; again grouping the \$50 and \$100 notes, as well as all the notes of \$500 and upward.

The smallest denominations of notes appear to have been issued in insufficient quantities excepting perhaps during the first four years of the period and in 1893. The reduction of the volume of ones and twos in 1886, when the issue was confined to the United States notes, was partly due to the desire to enlarge the use of silver dollars; failing in this, the issue of small silver certificates was authorized, and the total disappearance of the smallest issues of national-bank notes opened a large field for the certificates. The elimination from the circulation of the United States notes of these denominations has been largely made up by the Treasury-note issue since 1891.

The history of the five-dollar notes and, in a lesser degree, of the tens, is very much like that of the ones and twos; silver certificates and Treasury notes having replaced other forms and provided for the additional demand.

On the other hand, the twenties are in a much larger proportion of the United States note issue, gold certificates (of which issue \$20 is the smallest denomination) never having been considerable in amount, and the other forms showing a diminution. The supply of this denomination of money has been quite sufficient during almost the entire period.

The fifties and hundreds show the same changes (although in a lesser degree) as are perceptible in the twenties, but the large notes, \$500 and over, have been chiefly of the gold-certificate issue.

Currency certificates are not included with the large paper issues, for the reason that they represent United States notes of all denominations on deposit in the Treasury; these are included under their respective heads since it is not possible to determine accurately how much of each denomination was held on deposit for such certificates, no record having been published. But the amounts of the certificates are not sufficiently large to interfere seriously with the comparisons intended to be made. On other hand, the certificates, if considered as large denominations, would be offset by such denominations in use for purposes other than reserves.

Ex.—Table Showing the Denominations of the Entire Stock of Paper Money.

(In millions of dollars)

End of Fiscal Year.	Total Paper.	Currency Certificates.	Paper Excluding Currency Certificates.	Ones and Twos					Fives.					Tens.				
				Silver Certificates.	United States Notes.	Treasury Notes of 1890.	National Bank Notes.	Total.	Silver Certificates.	United States Notes.	Treasury Notes of 1890.	National Bank Notes.	Total.	Silver Certificates.	United States Notes.	Treasury Notes of 1890.	National Bank Notes.	Total.
1873.....	804	32	772	..	53	..	9	62	..	46	..	128	174	..	73	..	100	173
1874.....	847	59	788	..	54	..	9	63	..	50	..	133	183	..	77	..	96	173
1875.....	837	58	779	..	54	..	7	61	..	45	..	125	170	..	73	..	100	173
1876.....	784	33	751	..	56	..	6	62	..	46	..	106	152	..	60	..	98	167
1877.....	778	55	723	..	50	..	6	56	..	49	..	95	144	..	65	..	98	163
1878.....	763	47	716	..	42	..	7	49	..	55	..	94	149	..	65	..	104	169
1879.....	725	31	694	..	36	..	7	43	..	54	..	96	150	..	65	..	106	171
1880.....	725	14	711	..	41	..	4	45	..	65	..	101	166	..	75	..	114	191
1881.....	770	12	758	..	45	..	3	48	..	69	..	100	169	..	77	..	119	216
1882.....	789	13	776	..	50	..	2	52	..	67	..	98	165	..	77	..	121	223
1883.....	887	13	874	..	53	..	1	54	..	71	..	94	165	..	73	..	120	230
1884.....	917	12	905	..	51	..	1	52	..	76	..	87	163	..	70	..	113	230
1885.....	973	30	943	..	50	..	1	51	..	76	..	81	157	..	64	..	105	221
1886.....	920	38	902	..	36	..	..	36	..	86	..	83	159	..	67	..	101	218
1887.....	902	18	884	23	18	..	..	41	8	95	..	78	181	..	80	..	92	226
1888.....	985	9	893	45	10	..	..	55	52	81	..	72	205	..	86	..	82	248
1889.....	992	17	975	48	..	..	..	55	86	58	..	59	203	..	87	..	68	242
1890.....	1,004	12	992	54	7	..	..	60	102	58	..	52	212	..	90	..	60	261
1891.....	1,054	30	1,030	48	9	7	..	61	110	58	..	59	225	..	92	..	53	272
1892.....	1,139	24	1,109	44	7	14	..	65	102	62	..	50	237	..	92	..	54	288
1893.....	1,110	12	1,098	39	6	26	..	71	94	62	37	51	244	107	91	44	57	299

THE MONEY OF THE UNITED STATES.

E2.—Table Showing the Denominations of the Entire Stock of Paper Money.

(In millions of dollars.)

End of Fiscal Year.	Twenties.					Fifties and Hundreds.					Five Hundreds and Over.							
	Gold Certificates.	Silver Certificates.	United States Notes	Treasury Notes of 1890.	National-Bank Notes.	Total.	Gold Certificates.	Silver Certificates.	United States Notes.	Treasury Notes of 1890.	National-Bank Notes.	Total.	Gold Certificates.	Silver Certificates.	United States Notes.	Treasury Notes of 1890.	National-Bank Notes.	Total.
1873.....	..	..	67	..	59	126	1	..	54	..	47	102	38	..	63	..	4	105
1874.....	..	..	72	..	61	133	1	..	64	..	50	115	22	..	65	..	3	90
1875.....	..	..	67	..	66	133	1	..	62	..	54	117	21	..	75	..	2	98
1876.....	..	..	66	..	66	132	1	..	63	..	55	119	28	..	70	..	2	100
1877.....	..	..	63	..	65	128	1	..	65	..	52	118	40	..	68	..	1	109
1878.....	..	..	63	..	68	131	1	..	59	..	50	110	43	1	64	..	1	109
1879.....	..	..	69	..	71	131	1	..	58	..	48	107	15	..	74	..	1	109
1880.....	..	2	72	..	75	149	..	3	58	..	49	110	8	5	37	..	1	111
1881.....	..	18	72	..	79	166	..	7	57	..	53	117	5	5	27	..	1	111
1882.....	..	25	69	..	82	176	..	7	59	..	54	120	5	4	30	..	1	140
1883.....	9	35	62	..	84	190	18	9	58	..	57	142	55	7	30	..	1	115
1884.....	13	48	58	..	81	200	18	14	57	..	56	145	67	11	36	..	1	173
1885.....	12	52	55	..	76	195	20	17	56	..	53	147	108	19	45	..	1	155
1886.....	12	45	55	..	73	185	19	18	55	..	49	140	100	4	50	..	1	155
1887.....	11	50	64	..	66	191	16	9	52	..	42	119	94	1	39	..	1	135
1888.....	13	44	85	..	59	201	24	7	53	..	38	122	105	1	32	..	..	138
1889.....	11	35	94	..	51	191	20	6	59	..	32	117	123	1	43	..	..	167
1890.....	12	26	111	..	46	195	21	8	54	..	28	111	124	1	28	..	..	153
1891.....	14	29	119	3	41	206	21	12	47	..	7	112	117	5	26	6	..	154
1892.....	12	44	114	11	41	222	18	27	43	10	25	124	127	2	32	11	..	172
1893.....	9	56	102	20	43	230	13	33	38	8	27	119	72	2	49	12	..	135

The following table (F.) presents a combination of all the amounts of paper money under \$20, and of those over that denomination, with the proportion that each general class bears to the entire issue of paper. The amount of small notes has increased since 1872, by \$309,000,000, and from the lowest point (in 1877) by \$353,000,000.

F.—Table showing the Kinds and Proportions of the Small and of the Large Denominations of Paper Money.

(In millions of dollars.)

End of Fiscal Year.	Small Denominations (\$1 to \$20).						Large Denominations (\$50 to \$10,000).						Currency Certificates.		
	Gold Certificates.	Silver Certificates.	United States Notes.	Treasury Notes of 1890.	National- Bank Notes.	Total Small.	Per Cent. of Total Paper.	Gold Certificates.	Silver Certificates.	United States Notes.	Treasury Notes of 1890.	National- Bank Notes.		Total Large.	Per Cent. of Total Paper.
1873	..	..	239	..	296	535	72.1	39	..	117	..	51	207	27.9	32
1874	..	..	253	..	299	552	72.9	23	..	129	..	53	205	27.1	59
1875	..	..	239	..	298	537	71.4	22	..	137	..	56	215	28.6	58
1876	..	..	237	..	276	513	70.0	29	..	133	..	57	219	30.0	33
1877	..	..	227	..	264	491	68.4	41	..	133	..	53	227	31.6	55
1878	..	..	224	..	273	497	69.4	44	1	123	..	51	219	30.6	47
1879	..	..	215	..	280	495	71.3	16	2	132	..	49	199	28.7	31
1880	..	4	253	..	293	550	77.4	8	8	95	..	50	161	22.6	14
1881	..	38	264	..	301	603	79.5	5	12	84	..	54	155	20.5	12
1882	..	54	259	..	303	616	79.4	5	11	89	..	55	160	20.6	13
1883	9	72	260	..	298	639	73.1	73	16	88	..	58	235	26.9	13
1884	13	96	254	..	282	645	71.3	85	25	93	..	57	260	28.7	12
1885	12	104	246	..	262	624	66.1	128	37	101	..	54	320	33.9	30
1886	12	95	243	..	258	608	67.3	119	21	105	..	50	295	32.7	18
1887	11	135	257	..	236	640*	71.6	110	10	91	..	43	254	28.4	9
1888	13	221	262	..	214	710	73.2	129	8	85	..	38	260	26.8	15
1889	11	256	245	..	179	691	70.9	143	7	102	..	32	284	29.1	17
1890	12	293	266	..	157	728	73.4	145	9	82	..	28	264	26.6	12
1891	14	297	274	37	142	764	74.1	138	17	73	13	25	266	25.9	24
1892	12	302	274	79	146	813	73.3	145	29	75	21	26	296	26.7	30
1893	9	296	261	127	151	844.	76.9	85	35	87	20	27	254	23.1	12

* As to discrepancy see p. 41.

The proportion of the entire paper issue in small denominations fluctuated between 79.5 per cent. and 66 1 per cent., with an average of 72.5 per cent. for the entire period.

In view of the fact that, even in 1893, when the proportion of small notes appears to have been nearly 77 per cent., the supply of the smallest denominations was not equal to the demand, it is not an unreasonable conclusion that an average of fully 75 per cent. of our paper issues might be in denominations not exceeding \$20. An increase in the demand during the busier

seasons and a falling off during the inactive months, are usually to be expected, and the proportion stated would hardly prove excessive.

The chief feature of interest in the portion of the table devoted to the large denominations is the extensive use of gold certificates after the resumption of the issue in 1883, causing a marked increase in the volume of "bank money." The use of large silver certificates, as will be seen by referring to the preceding table, is almost entirely confined now to the denominations of \$50 and \$100, since it was found impracticable to keep any considerable amount of the larger issues in circulation. The same is true of national-bank notes.

The amount of currency certificates in use is repeated in this table, but not included in the statistics of large denominations, since it may be fairly assumed that about fifty per cent. of the amount of the United States notes which they represent are in small denominations.

In the table designated G., an estimate is presented of the net stock of effective money. The estimates of the amount of gold in the country are reduced annually by amounts which a still incomplete investigation of the subject has led the writer to believe should, for various reasons, be deducted.

Briefly stated, the grounds for the belief are as follows: The mint bureau estimated the amount of gold in the country in 1873, at \$135,000,000; this was predicated upon the existence of a supposed amount in the Treasury and in the national banks, and an estimate of \$20,000,000 to \$25,000,000 in use in the States of the Pacific slope; \$10,000,000 was then deemed a sufficient sum for that in the hands of banks other than national, and of the people. The amount supposed to be in the Treasury at the time was, however, stated incorrectly, causing a reduction of \$27,000,000 in the estimate, making this \$108,000,000 instead of \$135,000,000.

The production of gold during this period of twenty years was about \$707,000,000; the imports of gold have amounted to about \$588,000,000, making a total acquisition of \$1,295,000,000; the exports of gold aggregated \$665,000,000, leaving a net acquisition of \$630,000,000. Adding this to \$135,000,000, the original estimate, gives \$765,000,000 as the supply of gold; the mint estimates give the amount in the country at the end of the fiscal year 1893, as \$592,000,000, which would leave but \$173,000,000 consumed in the arts in twenty years; or if the reduced estimate of \$108,000,000 be used, the consumption in the arts would have been but \$144,000,000; either of these amounts is far below the actual figure, and it is much more probable that twice the last mentioned sum has been so used; but in the estimate herein presented a much smaller sum than this has been (tentatively) deducted, viz., about \$258,000,000, leaving the amount of the total gold stock (coin and bullion) \$480,000,000 at the end of 1893. Certainly not more than this sum is in use.

A revised estimate of the amount of gold outside of the Treasury is thus

arrived at, and the estimate of the amount of money in circulation is thereby changed. Adding this to the stock of money in the Treasury owned by it, a revised estimate of the effective stock is presented.

G.—Table Showing Approximately the Net Effective Money and the Amounts per Capita.

End of Fiscal Year.	Total Gold as per Treasury Reports.	Deduct for Over-Estimate.	Revised Estimates.			Money in the Treasury Owned.	Net Effective Stock.	Per Cent. of Effective Stock in Treasury.	Amount Per Capita of				Estimated Population.
			Gold Stock.	Gold in Banks and Circulation.	Total Money in Circulation.				Net Effective Stock.	Net in Treasury.	Net in Circulation.	Net Gold Stock.	
(In millions of dollars.)													
									\$	\$	\$	\$	
1873	135	27	108	36	802	56	858	6.5	20.57	1.34	19.23	2.59	41.7
1874	142	23	119	51*	827	76	903	8.4	21.09	1.77	19.32	2.78	42.8
1875	110	19	91	34	791	85	876	9.7	19.95	1.93	18.02	2.07	43.9
1876	113	14	99	44	772	91	863	10.6	19.14	2.02	17.12	4.41	45.1
1877	145	10	135	46	780	99	879	11.3	18.98	2.14	16.84	2.91	46.3
1878	213	27	186	58	780	164	944	17.4	19.83	3.44	16.39	3.91	47.6
1879	246	31	215	80	793	215	1,008	21.3	20.61	4.39	16.22	4.39	48.9
1880	352	35	317	191	943	212	1,155	18.3	23.05	4.23	18.82	6.21	50.1
1881	478	41	437	274	1,078	235	1,313	17.8	25.59	4.58	21.01	8.52	51.3
1882	507	46	461	313	1,132	235	1,367	17.2	26.04	4.48	21.56	8.78	52.5
1883	543	60	483	285	1,176	242	1,418	17.0	26.40	4.50	21.90	9.16	53.7
1884	545	64	481	276	1,178	243	1,421	17.1	25.88	4.42	21.46	8.76	54.9
1885	589	70	519	272	1,220	245	1,465	16.7	26.11	4.36	21.75	9.25	56.1
1886	591	72	519	286	1,177	309	1,486	20.8	25.88	5.38	20.50	9.04	57.4
1887	655	84	571	292	1,233	317	1,550	20.2	26.40	5.40	21.00	9.73	58.7
1888	706	91	615	301	1,281	319	1,600	19.9	26.66	5.31	21.35	10.25	60
1889	680	97	583	279	1,283	278	1,561	17.8	25.46	4.53	20.93	9.51	61.3
1890	695	99	596	275	1,330	256	1,586	16.1	25.33	4.09	21.24	9.52	62.6
1891	647	105	542	303	1,394	177	1,571	11.3	24.55	2.77	21.78	8.47	64
1892	664	107	557	301	1,496	148	1,644	9.0	25.10	2.26	22.84	8.50	65.5
1893	592	112	480	292	1,482	139	1,621	8.6	24.19	2.07	22.12	7.16	67

* This seems improbable, but is according to the statistics.

The effective stock, it will be observed, shows no decrease after the contraction in the earlier years, until 1889, when extensive gold exports began. These exports, however, were at first met almost entirely by the Treasury through the withdrawal of gold on notes. The amount of money outside of the Government vaults continued to increase, excepting during the last year, while the Treasury funds were reduced to a point lower than they were in 1878.

The proportion of the effective stock in the Treasury rose from $6\frac{1}{2}$ per cent. in 1873 to over 21 per cent. when resumption occurred; in 1886 it again nearly reached the maximum point, receding thereafter and sinking to the low point

of 8.6 per cent. in 1893. The effect of legislation, increasing or diminishing the revenues of the Government or its expenditures, is reflected in this column of proportions ; and the only means of speedily disposing of a large surplus, thus making the money available for general use at short notice, was the purchase of bonds. In another table (I.) are shown the decrease of the debt, and the years in which bonds were canceled in excess of the sinking fund requirements. These requirements have been from \$40,000,000 to \$50,000,000 annually.

It now becomes practicable to present estimates of the amounts of money *per capita* of the effective stock, of the amount in the Treasury and of that in circulation, as well as of the gold outside of the Treasury. The estimated population is shown in the last column.

The supply of money available for general use does not show violent fluctuations in the years subsequent to the period of contraction immediately preceding specie payments. The accretion of gold and the utilization of silver soon brought the amount *per capita* up to and beyond that of 1874. The loss of gold, beginning in 1889, reduced the amount from the maximum of \$26 60 in the previous year ; nor did the issue of Treasury notes in 1891 to 1893 suffice to replace the gold loss which it materially encouraged.

The amount in the Treasury, including, from 1879, the gold reserve, was, for reasons heretofore given, increased in 1886 beyond the normal requirements, causing a sharp decline in the amount in use outside of the Treasury. When the Government's holdings were finally reduced, the current carried the amount in circulation beyond the needs of the banks and the people.

After an examination of the column showing the circulation proper *per capita*, the fact impresses itself on the observer that the needs, including the reserve requirements of banks, are somewhat in excess of \$21.50 per head of population. The amounts shown to have been in circulation in 1890 to 1893 were therefore excessive, and had it not been for the abnormal hoarding following the disturbances of 1893, there would have been no necessity for the issue of auxiliary money in the shape of clearing-house certificates.

The Treasury stock, which must include the gold necessary for the ultimate redemption fund, should be increased to not less than \$3.50 *per capita*, which leads to the conclusion that at least \$25 per head should be available for effective circulation in normal periods.

A column is devoted to the gold stock *per capita* according to the revised estimate, to show the fluctuations which have taken place. About \$9, or somewhat more than one-third of the effective stock, should be in gold.

The law which operates to displace a superior form of circulation when an inferior form is issued in such volume as to cause a redundancy in the aggregate, is illustrated on more than one occasion, after resumption finally placed all our issues upon an equal footing. In 1883 the amount of circulation *per*

capita was very nearly \$22, the increase over preceding years having been caused (as shown in the preceding tables) by the large issue of silver certificates during the period when national-bank issues were at their highest; accordingly the gold stock was reduced by forty cents *per capita* by the end of 1884; and although the gold exported in excess of imports during 1884 (see table K.) was recovered in the following year, the continued attempt to force silver into use when no demand existed, caused another outflow of gold in 1886. The same process was repeated in 1888-9, and only the unusually large demand for circulation in the autumn of 1891 prevented its recurrence during the fiscal year 1892, in which year the exports and imports balanced; but in 1893 the full effect of the operation was felt, the loss of gold having been \$88,000,000. Only the unusual hoarding of all kinds of money during the summer of that year caused a partial return of the vast sum sent abroad. The repeal, finally, of the silver law of 1890, under which this large increase of circulation took place, will for the present prevent the further increase of the money stock, and when the amount now provided shall have been absorbed, imports of gold may be expected to supply any deficiency which may result. The recent emission of notes by national banks are being retired, the bonds upon which they depend having now again risen to the prices which prevailed before the stringency during the summer.

To what extent legislation may, by providing other means of increasing the circulation, defeat the natural tendency of gold to flow in this direction, it is of course impossible to foresee.

Table H. presents estimates (made up in part from the Treasury statements and in part from the revised estimates) having in view the determination of the volume of Retail Money, including in this category the small notes, the silver coin actually in use, and the gold coin supposed to be in the hands of individuals, with the amounts *per capita* of each as well as of the aggregates.

For this purpose the amounts of small notes, as given in table F., are first shown, and the fluctuation is more distinctly exhibited by a comparison according to population. The accuracy of this comparison is somewhat affected by the quantity of small notes held in the Treasury, the amount of which cannot be stated; but since these notes are always obtainable for large ones, or for gold, the relative increase or decrease of the *supply* is fairly represented.

The small note circulation, as has been previously stated, is not fully adequate as far as the lower three of the five denominations are concerned. The indicated requirement is about \$12 *per capita*, and in some of the years when this amount was not provided, silver coin was apparently drawn in larger quantities. The prevailing objection to this form of circulation is, however, manifested in the column relating thereto, which shows that it has never amounted to \$2 *per capita*, and usually is considerably below that figure.

H.—Table Showing Approximately the Supply of Retail Money, and the Amounts Per Capita.

End of Fiscal Year.	Small Notes.		Silver Dollars, Fractional Currency and Subsidiary Silver.		Small Notes and Silver.			Gold Coin.				Small Notes, Silver and Gold Coin.		
	Amount.	Per Capita.	Amount.	Per Capita.	Amount.	Per Capita.	Per Cent. of Net Effective.	Net Circulation.	In Banks.	In Individual Hands.	Amount Per Capita of the Latter.	Amount.	Per Capita.	Per Cent. of Net Effective.
	Millions of dollars.	\$	Millions of dollars.	\$	Millions of dollars.	\$		Millions of dollars.	Millions of dollars.	Millions of dollars.	\$	Millions of dollars.	\$	
1873	535	12.83	44	1.05	579	13.88	67.5	36	6	30	0.72	609	14.60	70.9
1874	552	12.90	46	1.07	598	13.97	66.3	51	8	43	1.00	641	14.97	71.0
1875	537	12.23	49	1.11	586	13.34	66.9	34	6	28	0.64	614	13.98	70.0
1876	513	11.37	55	1.22	568	12.59	65.8	44	8	36	0.80	604	13.39	70.0
1877	491	10.60	62	1.34	553	11.94	62.9	46	9	37	0.80	590	12.74	67.1
1878	497	10.44	66	1.39	563	11.83	59.6	58	11	47	0.99	610	12.82	64.6
1879	495	10.12	75	1.54	570	11.66	56.5	80	28	52	1.06	622	12.72	61.7
1880	550	10.98	74	1.47	624	12.45	54.0	191	92	99	1.98	723	14.43	62.6
1881	603	11.75	82	1.65	685	13.35	52.2	274	120	154	3.00	839	16.35	63.8
1882	616	11.73	84	1.60	700	13.33	51.2	313	110	203	3.87	903	17.20	66.0
1883	639	11.90	87	1.62	726	13.52	51.2	285	87	198	3.68	924	17.20	65.2
1884	645	11.75	86	1.56	731	13.31	51.4	276	91	185	3.37	916	16.68	64.5
1885	624	11.12	82	1.46	706	12.58	48.2	272	116	156	2.78	862	15.36	58.8
1886	608	10.59	89	1.55	697	12.14	46.9	286	139	147	2.56	844	14.70	56.8
1887	640	10.90	94	1.60	734	12.50	47.3	292	143	149	2.54	883	15.04	56.9
1888	710	11.83	106	1.77	816	13.60	51.0	301	146	155	2.58	971	16.18	60.7
1889	691	11.27	105	1.71	796	12.98	51.0	279	135	144	2.35	940	15.33	60.2
1890	728	11.63	110	1.76	838	13.39	52.9	275	120	155	2.47	993	15.86	62.6
1891	764	11.94	116	1.81	880	13.75	56.0	303	144	159	2.48	1,039	16.23	66.1
1892	813	12.41	119	1.81	932	14.22	56.8	301	158	143	2.18	1,075	16.40	65.4
1893	844	12.59	122	1.82	966	14.41	59.6	292	150	142	2.12	1,108	16.53	68.3

The amount of small notes and silver required to perform the functions of retail money is therefore hardly in excess of \$14 *per capita*; but considerably more than 50 per cent., and probably 55 per cent., of the effective supply of money should be in these smaller forms.

An estimate is here presented of the amount of gold coin in the banks for the purpose of determining approximately the amount which is in individual hands. The conclusion reached is that the amount *per capita*, since resumption, has fluctuated between \$1.06 and \$3.87, having been about \$2.12 at the close of the fiscal year 1893.

Since gold does not, in fact, perform a perceptible portion of the retail-business transactions in the part of the country east of the Rocky Mountains—constituting, according to recent reports, less than one per cent. of the deposits received by banks—the figures of the column devoted to this form of money appear too large, unless private hoards are considered. Not more than one-third of the amount of gold coin here shown may be allowed for the circulation in States of the Pacific slope.

Indications are not wanting, however, to show that when the supply of other money for retail purposes is insufficient, gold has been obtained from the Treasury for such use. Moreover, it would seem that the issue of gold certificates has perceptibly diminished the stock of gold in banks as well as that in circulation, to the advantage of the Treasury.

Making due allowance for the service which gold *does* perform (including its use on the Pacific slope) it may be concluded that 60 per cent. of the entire effective money supply is required for retail trade.

The amount of money therefore which is necessary to carry on the small transactions of daily life, in an effective circulation of say \$1,600,000,000 (the average for the past six years), would be about \$960,000,000. Of this amount \$800,000,000, or an average *per capita* of nearly \$12, would be in use practically all the year round; and so long as facilities for the interchange of all forms of money are afforded, it is of no consequence what the form adopted for the retail money may be, provided it be *convenient*.

The amount of silver certificates of the convenient denominations, now in use, is (according to Table F.) about \$300,000,000; the silver dollars and subsidiary silver amount to \$120,000,000, and the small national-bank notes to \$150,000,000, a total of \$570,000,000. It is therefore entirely practicable to convert the \$150,000,000 of Treasury notes into small denominations, withdrawing that amount of United States notes of \$10 and under, and issuing larger ones. A further withdrawal of such notes would provide for the conversion of the remaining silver issues into convenient denominations, and thus distribute all of our silver money in such a manner as to remove almost entirely the element of danger with which this portion of our circulation is charged. In other words, the demand for the actual work of making small exchanges will keep the entire silver issue, in addition to the national-bank notes, *circulating*, just as the demand for convenient smaller denominations of money keeps afloat a very large amount of the minor or base coinage, the intrinsic value of which is vastly below its nominal value.

Attention is here again directed to the issue of currency certificates. When the active work of the crop seasons is performed by the small notes, these return to the money centres, and finally to New York, in vast amounts, frequently at the rate of \$35,000,000 in a single month. In the case of United

States notes the issue of these certificates provides for a convenient method for storing the small denominations in the Treasury offices, and substituting for them the certificates which are entirely in large denominations. Such of the notes as are unfit for circulation are replaced by the Treasury, and when the demand for small denominations returns, the certificates are surrendered. Such a form of certificate should be issued either by the Treasury or the clearing-house, for any of the smaller denominations of Government paper money. Since all of the issues are to be maintained at an equality as far as the Treasury is concerned (they are all receivable for Government dues), there is no valid reason why any discrimination in favor of one issue of such money should exist. Moreover, while aiding in the maintenance of the equality, these certificates would help to solve the problem of taking care of the plethora of small notes which is annually caused by the circumstances referred to, and for which the banks can hardly find storage space.

In the table designated I. are presented the amounts of the deposits of the discount banks of the country, the amount of cash which would be required to provide a reserve of 20 per cent. of these deposits, the amounts of cash held by these banks and the supply of large denominations of paper available for reserves (excluding national-bank notes), together with the gold-coin holdings of the banks.

In this connection the portion of table F. showing the large denominations of paper (of which the bank reserves are largely composed) is utilized; a marked change took place during the years 1879-1882, when the issue of gold certificates was suspended, the coin itself being used for reserve purposes.

The first portion of table I. shows the relative increase in the volume of the *commercial circulation* which constitutes fully 90 per cent. of the aggregate of the "tools of exchange" utilized in our extensive internal commerce. Noteworthy points in this succinct review of our banking history are: (1) The increase in aggregate deposits from 1873 to 1879 was only \$150,000,000; in the six years immediately after resumption the increase amounted to over \$450,000,000, and in the six succeeding years to \$1,078,000,000. (2) The growth of deposits in State banks, while amounting to only \$537,000,000 in the entire period, was proportionately larger than that of deposits in national banks. (3) The several periods of financial disturbance are clearly marked, viz., 1877-8, 1883-4 and especially 1892-3. (4) In only two of the years enumerated did the cash reserve held equal 20 per cent. of the deposits, viz., 1874 and 1885, years succeeding panics. (It should be borne in mind that most of the national banks are permitted by law to have a portion of their reserves on deposit with their correspondent banks in the so-called "reserve cities.")

The supply of forms of money for reserve purposes has apparently been ample excepting in the years 1874, 1880, 1893. During these years smaller

I.—Table Showing the Deposits in Banks, Reserves, Bonded Debt, etc.

(In millions of dollars.)

Year.	Deposits in Banks.			Reserve of 20 Per Cent Would be.	Cash Held			Gold in Banks, and Large Notes,†	Deposits in Savings Banks.	Bonded Debt.	
	National Banks, October 1.	State Banks, Various Dates.	Total.		National Banks, October 1.	State Banks, Various Dates.	Total.			Amount.‡	Reduction Annually.
1873	673	111	784	157	133	11	144	162	802	1,710	Period of conver- sion and fund- ing of debt.
1874	717	144	861	172	144	27	171	160	865	1,740	
1875	732	168	898	180	133	28	161	165	924	1,723	
1876	706	158	864	173	135	29	164	170	941	1,711	
1877	668	127	895	179	123	37	160	183	866	1,712	
1878	677	143	820	164	128	31	159	179	880	1,795	
1879	768	167	935	187	138	39	177	178	802	1,798	
1880	967	209	1,176	235	174	55	229	203	819	1,724	
1881	1,112	261	1,373	275	173	41	214	221	892	1,640	
1882	1,119	282	1,401	280	175	42	217	225	967	1,464	
1883	1,168	335	1,503	301	188	43	231	204	1,025	1,338	
1884	1,099	325	1,424	285	220	54	274	294	1,073	1,227	
1885	1,248	344	1,592	318	263	61	324	382	1,095	1,196	
1886	1,302	343	1,645	329	225	39	264	384	1,141	1,146	
1887	1,388	448	1,836	367	245	*50	*295	354	1,235	1,022	
1888	1,544	410	1,954	391	268	*60	*328	368	1,364	951	
1889	1,655	507	2,162	432	274	*60	*324	387	1,465	830	
1890	1,759	553	2,312	462	283	*66	*349	356	1,525	725	
1891	1,759	557	2,316	463	297	*70	*367	385	1,623	611	
1892	2,022	648	2,670	534	327	*74	*401	428	1,712	585	
1893	1,575	*518	*2,093	418	346	*78	*424	377	1,785	585	

* Partly estimated. † Excluding national-bank notes. ‡ Excluding Pacific Railroad Aid Bonds.

notes were held to a larger extent, and in 1874, 1884, 1890 and 1893 clearing-house certificates were issued as auxiliaries. In each of the years named the insufficiency of reserve moneys was reflected in the gold movement (table K.) checking the tide of exports or causing imports.

In this table are also given, for comparison, the deposits of savings banks for the period under consideration, and the amount and annual reduction of the bonded debt of the United States, exclusive of the \$64,000,000 issued in aid of Pacific railroads.

The final table of the series (K.) shows the product and commercial movement of gold and silver for the United States, the price of silver and the commercial ratio to gold each year, also the world's product and coinage of gold and silver.

The production of gold and silver is given in the statistics of the Treasury by calendar years, but amounts are here estimated by fiscal years without

THE MONEY OF THE UNITED STATES.

K.—Table Showing the Gold and Silver Movement, etc.
(Amounts in millions of dollars.)

Fiscal Year.	Gold, U. S.				Silver, U. S.				Calendar Year.					
	Product, U. S. *	Import.	Export.	Excess of	Product, U. S. *	Import.	Export.	Excess of Export.	Average Price.	Commercial Ratio to Gold.	World's Gold.		World's Silver.	
											Import.	Export.	Product.	Coinage.†	Product.	Coinage.†
1873.....	36	9	45	..	32	13	40	27	\$1.208	15.92	113	258	94	132
1874.....	35	19	34	..	37	9	33	24	1.282	16.17	105	136	96	103
1875.....	33	14	67	..	34	7	25	18	1.250	16.52	103	205	90	123
1876.....	37	8	31	..	35	8	25	17	1.159	17.94	110	213	97	124
1877.....	43	26	26	..	39	15	30	15	1.202	17.20	114	174	81	78
1878.....	49	13	9	4	42	16	24	8	1.152	17.94	119	188	95	161
1879.....	45	6	5	1	43	14	20	6	1.116	18.06	106	150	97	85
1880.....	37	81	4	77	40	12	13	1	1.144	18.55	107	91	89	105
1881.....	35	100	3	97	41	11	17	6	1.135	18.15	103	147	102	108
1882.....	34	34	32	2	45	8	17	9	1.138	18.19	102	100	112	111
1883.....	31	18	12	6	46	11	20	9	1.119	18.48	95	105	115	109
1884.....	30	23	41	..	48	15	26	11	1.115	18.56	102	99	111	96
1885.....	32	27	9	18	50	17	34	17	1.092	18.92	108	96	118	127
1886.....	33	21	43	..	51	18	30	12	1.033	20.04	106	95	121	125
1887.....	34	43	10	33	52	17	26	9	981	21.02	106	125	124	163
1888.....	33	44	18	26	56	15	28	13	956	21.59	110	135	141	135
1889.....	33	10	60	..	62	19	37	18	935	22.18	123	169	162	139
1890.....	33	13	17	..	67	21	35	14	968	21.33	120	149	174	151
1891.....	33	18	86	..	73	18	22	4	1,448	19.83	126	119	186	136
1892.....	33	50	50	..	75	20	33	13	937	22.67	131	168	196	143
1893.....	34	21	109	..	75	23	41	18	843	24.57	139	?	?	?
Total.....	743	598	511	264	1,043	307	576	269	....	....	....	....	....	....

* Calendar years are converted into fiscal years.

† Includes recoinnages.

changing the aggregate. In the twenty-one years the production of gold amounted to \$743,000,000, the imports to \$598,000,000, and the exports to \$711,000,000, involving a transfer of \$1,309,000,000, equal to more than one-third of the world's entire stock, with a net result of a loss to the United States of \$112,000,000, or but a trifle more than the exports of 1893. In other words, omitting the exports of 1893, the accounts of the United States with other nations, payable in gold during the period of 21 years, were practically balanced, and \$1,200,000,000 of specie were sent back and forth at an expense of several millions of dollars to reach that end. Not until the clearing-house system is extended to international transactions, as has been proposed by several writers, will this apparently needless tax upon commerce be saved.

The movement of silver has resulted in the net disposal of \$269,000,000 to other nations. Of our product of \$1,043,000,000 we have therefore kept for our own use (assuming all of our importations to have been re-exported) the sum of \$774,000,000, of which, as was shown in table B., \$598,000,000 has gone into circulation; the remainder (after allowing for depreciated valuation) has been consumed in the arts.

The columns of the table showing the average price per fine ounce of silver bullion and the commercial ratio of that metal to gold, make manifest how little the acquisition of silver by the United States has affected the course of the market. A slight increase in price occurred in 1876-7, when the large purchases for subsidiary coinage were made; but the passage of the law of 1878 and the purchases under it served to enhance the average price by less than three cents, and only for a short period; and the increased purchases under the law of 1890, added but 8 cents to the average price for one year alone, the rate for the white metal falling lower than ever in 1892, and in 1893, it was, for a short time, quoted at 62 cents, less than half its price in 1873 when it was almost at the United States parity (\$1.29.29).

The world's product of silver did not exceed that of gold until 1882, and this corresponds with the period of the more marked decline in the price of silver. The coinage of precious metals exceeds the production in almost every one of the years. This is due to the recoinage (coin made from bullion derived from melting up other coins) accurate statistics of which are not available. The cost of recoinage, except in the case of abraded pieces, is another large expense which an inter-national clearing-house system would render unnecessary. In fact, a large portion of the usual coinage would be dispensed with.

The amount of paper currency used is so great that a very large force is continually employed in counting and recounting the old and worn notes and certificates, and another force fully as large is employed in preparing new ones. The volume may be approximately measured by the following table.

Redemptions of Paper Currency Each Year Since 1873.

(In millions of dollars.)

	United States Notes.	Gold Certificates.	Silver Certificates.	Treasury Notes.	Currency Certificates.	National Bank Notes.	Total.
1873.....	64	45	..	..	25	36	170
1874.....	94	69	..	..	53	50	266
1875.....	110	71	..	..	81	138	400
1876.....	97	84	..	..	108	99	388
1877.....	82	45	..	..	56	77	260
1878.....	80	47	..	..	94	57	278
1879.....	64	41	8	..	107	41	261
1880.....	81	7	..	..	62	35	185
1881.....	54	2	2	..	20	55	133
1882.....	79	1	9	..	15	75	179
1883.....	110	9	12	..	20	83	234
1884.....	86	25	20	..	28	93	252
1885.....	84	21	21	..	39	91	256
1886.....	63	10	28	..	59	60	220
1887.....	74	10	22	..	37	48	191
1888.....	64	65	22	..	24	59	234
1889.....	59	67	41	..	30	52	249
1890.....	78	45	56	..	28	44	251
1891.....	71	69	72	2	28	46	288
1892.....	66	66	93	9	64	44	342
1893.....	91	77	111	42	61	52	434

The redemption of fragments of notes or certificates, involving a discount equal to the portion missing, has caused a gain of about \$214,000, besides \$142,000 on fractional paper currency. About one-half of this amount accrued prior to 1878, and on United States notes; it is therefore not important in this connection, since it was allowed for in fixing the amount of notes outstanding under the law of May 31, 1878, by which it was limited to \$346,681,016.

Reference was made, on a preceding page, to the loss of paper currency by total destruction. Undoubtedly large amounts of the smaller notes of the earlier issues, particularly those used to pay troops, have entirely disappeared. This is not, however, true of the larger denominations.

Experience indicates that almost all of the large notes will eventually be presented, since these are naturally subjected to less use, and are held chiefly in reserves; in some cases the same notes are so held for a long period. The first issue of gold certificates, of which there were very few of the denomination of \$20, may properly be considered a fair instance whereby to estimate the probable destruction of large notes. The issue amounted to \$980,000,000, and continued from 1863 to 1878. At the close of 1892 only \$262,000 were outstanding, of which \$219,000 was in notes of \$1,000 and over, represented by sixty-six pieces.

The following table shows the amount of United States notes of the issues which preceded the one now in use, remaining unredeemed, and the proportion, to the total issue, of the large and small notes separately. The statement is brought down to the close of the fiscal year 1892.

Issue.	Small.		Large.		Total.		Outstanding, Per Cent.		
	Issued.	Out-standing	Issued.	Out-standing	Issued.	Out-standing	Small.	Large.	Total.
1st, 1862-1870...	384	6.7	285	0.9	669	7.6	1.7	0.3	1.1
2d, 1869-1877...	302	4.9	192	1.9	494	6.8	1.6	1.1	1.4
3d, 1875-1877...	36	0.2	52	1.1	88	1.3	0.5	2.1	1.5
4th, 1875-1879...	144	2.6	47	2.1	191	4.7	1.8	4.5	2.5
5th, 1878-1884...	113	3.2	127	5.1	240	8.3	2.8	4	3.5
Total.....	979	17.6	703	11.1	1,682	28.7	1.8	1.6	1.7

The destruction of large United States notes can therefore not be regarded as important in amount.

It is otherwise with respect to the small denominations, especially when the large amount of the earlier issues remaining unredeemed (over \$11,500,000) is considered. The amount of the annual redemption of these is rapidly diminishing, so that only a fraction of one per cent. of the outstanding is presented each year. The eventual gain therefore from the total disappearance of the small notes may be placed at \$8,500,000, an amount somewhat less than one per cent. on the aggregate of these denominations issued prior to 1885.

For the reasons given (the vicissitudes of war, etc.) this cannot be regarded as an indication of the gain on all note issues; in fact, the statistics of redemptions of notes of national banks that have failed, lead to the belief that the average will barely reach one-half of one per cent.

It is very difficult to estimate the volume of the minor coins in circulation. Reference to the coinage statistics in part I. will show that of the pieces now current about \$20,000,000 have been coined, leaving about \$5,500,000 of other pieces. The latter may be practically eliminated from consideration, very nearly all having been retired. Large amounts of the current issues have also been retired in a worn or defaced condition, and it is roughly estimated that not more than \$17,500,000 are now in use. The Treasury held on October 1, 1893, about \$889,000, and on January 1, 1893, about \$355,000, showing a gain of \$534,000. During the same period the coinage amounted to \$844,000. A portion of the amount in the Treasury (probably 20 per cent.) consisted of retired pieces, so that virtually the Treasury was able to float only \$410,000 during the nine months.

*Supplementary Statement Showing Changes in the Circulation from
June 30 to September 30, 1893.*

Aggregate Figures.	Entire Stock.			In Circulation.			In the Treasury.				
	Total.	Metal.	Paper.	Total.	Metal.	Paper.	Total.	Metal.	Paper.	Owued.	On De- posit.
September 30....	2,404*	1,279	1,126	1,702	607	1,095	702	671	31	132	570
June 30.....	2,317	1,207	1,110	1,594	526	1,068	723	681	42	139	584
Increase (+) or Decrease (-).	+87*	+72	+16	+108	+81	+27	-21	-10	-11	-7	-14

* As to discrepancy see page 41.

Money in Circulation.	Gold Coin.	Silver Dol- lars.	Subsidiary Coin.	Gold Certificates.	Silver Certificates.	U'ed States Notes.*	Treasury Notes.	Nat'l Bank Notes.	Total Less Deduction for Gold.	In Treas., Owued.	Net Effective.	Net Gold Stock.
September 30....	484	59	64	80	325	340	149	201	1,590	132	1,722	545
June 30.....	404	57	65	93	326	333	141	175	1,482	139	1,621	480
Increase (+) or Decrease (-).	+80	+2	-1	-13	-1	+7	+8	+26	+108	-7	+101	+65

* Includes currency certificates.

Details.	Paper Money.		Per Cent. of Small to All Paper.	Small Notes and Silver.	Per Capita.				Gold in Banks.	Gold in Treas- ury.	Gold in Hands of Individuals.
	Small.	Large.			Of Effect- ive.	In Circu- lation	Small Notes.	Small Notes and Silver.			
September 30....	885	232	79.2	1,008	\$ 25.59	\$ 23.62	\$ 13.15	\$ 14.97	191	173	181
June 30.....	844	254	76.9	966	24.19	22.12	12.60	14.42	150	188	142
Increase (+) or Decrease (-).	+41	-22	+2.3	+42	+1.40	+1.50	+.55	+.53	+41	-15	+39

The total gain of money during this interesting quarter year was \$87,000,000; but as the Treasury lost \$21,000,000, the amount in circulation was increased

\$108,000,000, \$80,000,000 of which was in gold, \$1,000,000 in silver and \$27,000,000 in paper. An analysis of the increase in paper shows that while United States notes and Treasury notes of 1890 increased \$15,000,000, gold and silver certificates decreased \$14,000,000, resulting in a net increase of only \$1,000,000 in Government issues; but the low price of bonds induced national banks to increase their issues by \$26,000,000. The gain in gold was derived from imports in excess of exports (\$52,000,000) from the Treasury (\$15,000,000) and from the production. Of the increase the banks took \$41,000,000, to make good in part their depleted reserves, and \$39,000,000 went into active circulation.

The small note issue was increased by \$41,000,000, and the large note issue (exclusive of currency certificates) decreased \$22,000,000, and the percentage of small notes to all was 79.2, an increase of 2.3 per cent. The amount *per capita* of the effective stock increased \$1.40; but the Treasury stock having decreased, the amount in circulation increased \$1.50 *per capita*.

The tendency to accumulate money in the banks of New York city at seasons when the inactivity of general business reduces the requirements of trade, is shown by the following statement, giving at various dates the amount of cash held by those banks, the amount required as legal reserve against deposits (25 per cent.), and the excess or deficit of cash compared with the reserve required—all in millions of dollars and tenths.

Date, 1893.	Cash Held.	Reserve Required.	Surplus (+) or Deficit (—).
July 1.....	100.7	99 5	+ 1.2
August 12.....	76.5	93	— 16.5
September 2.....	91.9	93.5	— 1.6
September 30.....	121.8	97 7	+ 24.1
October 28.....	157.1	108.3	+ 48.8
November 25.....	189.7	118 8	+ 70.9

On August 12 the lowest point was reached, the full effects of the money stringency having been felt; and notwithstanding the heavy importations of gold in August, the cash was short at the beginning of September. A reaction set in, however, and money left its hiding places; finding no immediate employment it took its way to New York, where the increase from September 2 to November 25 amounted to over \$98,000,000, or more than 100 per cent., and had not ceased at this latter date.

This inflow of money occurred at a season when it is usually needed for crop movements, and was therefore abnormal; but the volume of this movement, which usually occurs from December to June, is often fully as large.

PART III.

ABSTRACTS OF PLANS PROPOSED FOR THE SOLUTION
OF THE CURRENCY PROBLEM.

During the period covered by the preceding section, which marks the contest for the rehabilitation of silver, a multitude of plans for the improvement of the currency system of the United States have been proposed. It would be of little value to attempt to rehearse all of them, but since it is certain that in the near future the subject must receive further attention, some of the more recent propositions are here recapitulated. The subject is generally divided under the heads of: I. Coins, II. Government paper issues, and III. Bank issues of paper.

I. COINS. 1.—*Gold and Silver.* *a.* Repeal all legal-tender provisions relating to coin or paper issues; coin gold and silver freely and in unlimited amounts; retire Government notes and make the issue of bank notes free.

b. Issue gold and silver notes of denominations as at present or larger, upon deposits of bullion, the value of silver bullion deposited to be determined by the Treasury periodically according to the market quotations; the notes to be payable in bullion at the valuation at the time of payment; the notes to be a legal tender for all payments; the bullion to be held to redeem such notes; depreciation of the silver bullion held to be made up by a tax upon the notes issued while such deficiency exists, the proceeds of the tax to be invested in bullion to make up for the deficiency; no bullion to be received when and while the market price equals or exceeds \$1.35 per fine ounce; redemption agencies to be established abroad; power to impose an import duty on silver. Accompanying this, provision to coin sufficient gold of the present standard, in pieces of \$20 and \$10, and silver subsidiary pieces only at the rate of 464.4 grains fine silver (516 grains standard; ratio 20 to 1); to provide coin for the redemption of the notes when preferred by the holder; gold coins to be unlimited legal tender, and silver coins to the extent of \$20; the present coins to be exchanged at par; Treasury notes to be canceled and redeemed in silver notes; the bullion held under the act of 1890 to be carried to the silver bullion fund; coinage not to continue so long as silver is above the established par, \$1.03.35 per ounce fine; the law authorizing the issue of currency certificates to be repealed.

c. Free coinage; issue gold and silver certificates only; retire all Government notes by means of a bond issue; establish from the accrued seigniorage a safety fund to maintain the silver dollars at parity with gold (*i. e.*, if the silver

in the dollars be worth in the market 80 per cent. of their face value, an amount equal to 20 per cent. of the issue shall be in the safety fund). If necessary, buy gold with bonds to maintain the fund; bank issues to be eventually entirely discontinued.

2. *Silver.* A. Propositions looking to free coinage.—*a.* The free and unlimited coinage of legal-tender silver dollars out of any and all silver bullion brought to the mints, for the benefit of the holder (no seigniorage), at the present ratio; issuing silver certificates for such dollars when presented at the Treasury for the purpose.

b. Variations of the proposition, providing for the coinage of the dollars at other ratios, viz.:

17 to 1 producing a dollar of 438.6 grains standard.

18 to 1 producing a dollar of 464.4 grains standard.

19 to 1 producing a dollar of 490.2 grains standard.

20 to 1 producing a dollar of 516 grains standard.

c. Combined with these a proposition to make the fractional silver pieces exact subdivisions of the dollars, exchangeable for silver certificates and with full legal-tender power.

d. Another variation providing that the seigniorage accrue to the Treasury instead of to the holder of bullion—practically an unlimited extension of the act of 1878.

e. A modification providing for the coinage of the silver produced in the United States only, with a seigniorage of 20 per cent.

f. Combining with one or more of the foregoing, a proposition for a monetary union, to maintain the parity of silver of all the countries of the American continent.

g. Providing for the coinage of all bullion acquired under the act of 1890; the seigniorage estimated to arise therefrom to be made immediately available through the medium of silver certificates.

B.—More moderate propositions respecting silver:

*a.** Coinage of the bullion held under the law of 1890 at the rate of \$3,000,000 per month, and the monthly purchase and coinage of sufficient additional silver to coin \$2,000,000 and later \$3,000,000 more; limitation of the aggregate stock of dollars, however, to \$800,000,000; cancellation of such silver certificates and Treasury notes of 1890 as may be received by the Treasury, and prohibition of the issue of national-bank notes of denominations under \$10.

*b.** Coinage of \$100,000,000 at present ratio, but at the commercial value, without the issue of silver certificates; the seigniorage to be used to maintain the parity of the silver; the sale of bonds to replenish the gold reserve fund.

c. Sale of the seigniorage in bullion form to maintain parity.

* The two propositions, *a* and *b*, contemplate the enforced circulation of silver dollars *pro tanto*.

d. Coinage of silver to equal annually the coinage of gold, at present ratio; the bullion to be purchased by the Treasury and paid for in silver dollars.

e. Coinage of present stock of silver, and retirement of all notes or gold coin of denominations under \$20 with silver certificates, making these a legal tender in amounts not to exceed \$100.

II.—GOVERNMENT PAPER ISSUES. 1. *United States Notes.* *a.* Increase the issue of such notes, in varying amounts, as high as \$1,000,000,000.

b. Increase the issue of notes and provide for the issue of inter-convertible bonds, exchangeable for such notes, and *vice versa*.

c. Repeal the legal-tender provision, discontinue the reissue of notes, utilize the \$100,000,000 reserve fund supplemented by a bond issue to retire the notes as rapidly as bank notes are issued to take their place in the circulation.

d. Retire all United States notes and Treasury notes by an issue of bonds available for bank-note issues, and utilize the silver bullion held for the Treasury notes to increase the circulation by the gradual coinage of dollars and the issue of silver certificates.

e. Retire all Government notes by acquiring coin sufficient for the purpose by means of a bond issue; the Treasury to issue only certificates for gold and silver coin, and establish a safety fund for silver by setting aside the silver profit fund.

f. Retire all Government notes of denominations under \$10 (or \$20) and issue silver certificates of the smaller denominations only, and gradually convert the Treasury notes into silver certificates by the coinage of all silver bullion in the Treasury into dollars.

g. Refuse redemption of any notes in gold when the latter is intended for exportation.

2. *Treasury Notes of 1890.* In addition to the above mentioned propositions:

a. Sell the silver bullion held, and use the proceeds to retire the notes; any deficiency to be covered from the cash in the Treasury (in connection with United States notes, see II, 1, *c*).

b. Issue silver certificates in lieu of Treasury notes redeemed in silver dollars or received into the Treasury, coining the silver bullion into dollars for this purpose.

c. Increase the issue indefinitely, and exchange the same for United States bonds to any holder, temporarily; interest on the bonds to be suspended while held for notes, and the latter to be canceled upon return of bonds in exchange.

d. Permit deposits of gold coin and issue such notes to the depositor.

3. *Silver Certificates.* a. To make these a legal tender, the same as the dollars.

b. To issue no silver certificates of denominations larger than \$20.

4. *Gold Certificates.* a. To make these a legal tender, like gold coin.

b. To issue, in lieu of gold and silver certificates, *coin* certificates, for either kind of coin.

5. *Bullion Notes.* To issue bullion notes instead of coin notes, to be redeemable only in silver or gold bullion respectively at the existing market rate for silver, to be maintained by a tax on the issue, the notes to be legal tender (for a fuller explanation, see under Gold and Silver, b).

III.—BANK ISSUES OF PAPER. I. Propositions having in view the continuation of the present system of national-bank issues :

a. Permitting the issue of notes to the extent of the par value of bonds on deposit instead of only 90 per cent.

b. To provide for an issue of bonds to retire the United States notes (\$364,000,000) and the Treasury notes of 1890 (\$156,000,000) enabling the national banks thus to acquire bonds for the purpose of issuing circulation to replace the retired notes.

c. Permitting the deposit, for security of notes, of State, county and municipal bonds, as well as approved railway mortgage bonds, to enable the banks to increase their issues upon profitable terms. (A modification of this proposition excludes State bonds, since suits to recover on them would not lie, and also railway bonds as lacking in security.)

2. Propositions modifying the present system in important particulars:

a. Providing for the issue of notes, without bonded security, to the extent of 75 per cent. of the capital of a bank, the notes to be a first lien upon all assets and a duplicate liability of stockholders, repealing the 1 per cent. tax on national-bank issues ; and for special purposes permitting the issue of notes upon bonds at par, to the extent of twice the amount of the capital of banks in reserve cities ; note redemptions to be made at specified agencies for each section of the country. The tax of 10 per cent. on State-bank issues to be repealed for States passing banking laws in conformity with the foregoing. (In connection with United States notes, see II, 1, c).

b. Providing for note issues without bonded security, but making them a first lien upon the assets of each bank, and providing a safety fund from the tax upon circulation to redeem notes of failed banks.

c. The repeal of the tax of 10 per cent. on State-bank issues, permitting the emission of notes under State banking laws.

d. The preceding provision supplemented by the condition precedent that the State laws provide for bonded security.

A comprehensive combination : Redeem and cancel the \$346,000,000 of

United States notes by bond issues; redeem and cancel the Treasury notes, \$152,000,000 in gold or silver; coin the silver bullion into dollars and issue silver certificates to replace the Treasury notes ; issue gold certificates on gold-coin deposits; give the gold and silver certificates full legal-tender power; permit the issue of bank notes under Federal supervision to the extent of 75 per cent. of capital, without bonds, but with a first lien on assets ; provide a safety fund from tax upon circulation, utilizing the tax so paid in the past ; additional issues upon bonded security to be permitted.

A comprehensive international plan proposes the establishment of an international monetary clearing house or commission representing all of the commercial nations, to select a universal standard, both gold and silver to be utilized at such a flexible ratio as to effect stability, and to adopt measures for facilitating international monetary transactions and supervise the same. In its details it provides for a proper distribution of money metals, to obviate losses by sudden fluctuations in volume, and for the issue of international gold and silver certificates. Underlying the proposition as a whole are the desire and expectation of Universal Bi-metallism.

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